

**A Typological and Iconographic Investigation of
Musical Instruments in Iron Age Greece and Cyprus
(11th-7th centuries BC)**

Aerophones, Idiophones, Membranophones

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VOLUME I

TEXT

Abstract

Musical imagery provides an iconographic link between the Late Bronze Age and the passage to the Early Iron Age in Greece and Cyprus. The thematic link provided by this particular genre is very important because of the semantic value of musical scenes. The performance of music as a patterned behaviour is associated with fundamental patterns of behaviour such as ritual. In addition, like all forms of art, the creation and performance of music is a social act closely linked to other social events, groups of people, hierarchies, and the beliefs and trends of a given society. Therefore, the creation of a musical scene alluding to actual experiences of musical performances is automatically a reference to these sets of concepts, irrespective of whether an image is representing a *specific* performance or not.

This thesis examines the iconography of musical instruments in Greece and Cyprus from the 11th to the 7th centuries BC. The work focuses on all types of artefacts with musical iconography, including two- and three-dimensional representations. In order to analyse the musical scenes, the first step is to establish a *typology* of Greek and Cypriote musical instruments in connection with the current ethnomusicological research and organological classification systems. Following the instrumental analysis, further iconographic issues such as style, compositional syntax and the individual motifs of an image are dealt with. Morphology, playing technique, the symbolic meaning of the playing of an instrument and the establishment of or the change in a trend in music can be manifested visually in a musical scene and are open to a certain degree to iconographic analysis. The ultimate aim of this work is hermeneutical penetration and *interpretation* of the scenes, the understanding of the meaning they held for their contemporary viewer. The work comprises a catalogue of Early Iron Age musical scenes and a catalogue of surviving musical instruments from Greece and Cyprus.

Declaration:

I confirm that this thesis is entirely of my own composition and represents my own original research.

Signed:

Aikaterini Køloutourou
July 2004

Acknowledgements

This work was inspired by A. Antonopoulos's lectures on ancient Greek music which I attended as a music student at the Hellenikon Conservatory of Athens in 1997. My subsequent participation, with the kind permission of Dr A. Voutira, in the 9th meeting of the ICTM study-group on music iconography shaped the directions that I followed in my doctoral research.

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ABBREVIATIONS

Bibliography

AA	<i>Archäologischer Anzeiger</i>
AAA	<i>Ἀρχαιολογικά Ἀνάλεκτα ἐξ Ἀθηνῶν</i>
ActaArch	<i>Acta Archaeologica Copenhagen</i>
Aegean	Younger, J.G. , 1998, <i>Music in the Aegean Bronze Age</i> . SIMA (Pocket book 144). Jonsered.
Agora	<i>The Athenian Agora, Vols. I-. Results of Excavations Conducted by the American School of Classical Studies in Athens.</i>
Aign	Aign, B. , 1963, <i>Die Geschichte der Musikinstrumente des Agaischen Raumes bis um 700 v. Chr.</i> Frankfurt a.M.
AJA	<i>American Journal of Archaeology</i>
AM	<i>Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung</i>
Antiquity	<i>Antiquity. A quarterly Review of Archaeology</i>
AntCl	<i>L'Antiquité Classique</i>
AntK	<i>Antike Kunst</i>
AR	<i>Archaeological Reports</i>
ArchDelt	<i>Ἀρχαιολογικό Δελτίο</i>
ArchEph	<i>Ἀρχαιολογική Ἐφημερίς</i>
ASAtene	<i>Annuario della R. Scuola Archaeologia di Atene e delle missioni italiane in oriente</i>
BASOR	<i>Bulletin of the American Schools of Oriental Research</i>
BCH	<i>Bulletin de correspondance Hellenique</i>
Behn	Behn, F. , 1954, <i>Musikleben im altertum und frühen Mittelalter</i> . Stuttgart.
BICS	<i>Bulletin of the Institute of Classical Studies of the University of London</i>
Bowls	Markoe, G. , 1985, <i>Phoenician Bronze and Silver Bowls from Cyprus and the Mediterranean</i> . Berkeley.
BSA	<i>Annual of the British School at Athens</i>
CHIC	Olivier, J.P. , 1996, <i>Corpus Hieroglyphicorum Inscriptionum Cretae</i> . Études Crétoises 31. Paris.
CMS	Pini, I. (ed.) , 1964-present, <i>Corpus der minoischen und mykenischen Siegel</i> , vols. i-. Berlin.
Coroplastic i-vA, vi	Karageorghis, V. , 1991-1998, <i>The Coroplastic Art of Ancient Cyprus</i> , vols. i-vA, vi. Nicosia.
Coroplastic vB	Karageorghis, J. , 1999, <i>The Coroplastic Art of Ancient Cyprus</i> , vol. vB. Nicosia.
CQ	<i>Classical Quarterly</i>
CRAI	<i>Comptes rendus des séances de l'Académie des inscriptions et belles-lettres</i>
Crete-Egypt	Karetsou, A. & Andreadaki-Blazaki, M. (eds.) , 2000, <i>Κρήτη-Αίγυπτος. Πολιτισμικοί δεσμοί τριών χιλιετιών. Αρχαιολογικό Μουσείο Ηρακλείου, 21 Νοεμβρίου 1999-21 Σεπτεμβρίου 2000. Κατάλογος. ΥΠΠΟ, Ηράκλειο 2000</i> . Exhibition catalogue.
CVA	<i>Corpus Vasorum Antiquorum</i> , 1900-present.
DarSag	Daremberg, C. & Saglio, E. , 1875, <i>Dictionnaire des antiquités grecques et romaines</i> . Paris.

<i>Dons</i>	<i>Dons des Muses. Musique et danse dans la Grèce ancienne.</i> Musées royaux d' Art et d' Histoire-Musée du Cinquenaire, Bruxelles 26.02-25.05.2003. Athènes, Ministère de la Culture. Exhibition catalogue.
<i>Ergon</i>	<i>Το Έργον τῆς ἐν Ἀθήναις Ἀρχαιολογικῆς Ἑταιρείας</i>
<i>Etudes et Travaux</i>	<i>Etudes et Travaux. Studia i prace. Travaux du Centre d'archéologie méditerranéenne de l'Académie des sciences polonaise</i>
<i>GMW</i>	Barker, A. , 1984-9, <i>Greek Musical Writings</i> , Vols. i-ii. Cambridge.
<i>Hesperia</i>	<i>Hesperia. Journal of the American School of Classical Studies at Athens</i>
<i>History</i>	Sachs, C. 1940, <i>The History of Musical Instruments</i> . New York.
<i>Hornbostel-Sachs</i>	Hornbostel, von E. M. & Sachs, C. , 1961, "Classification of Musical Instruments", <i>Galpin Society Journal</i> XIV: 3-29 (translated by A. Baines and K.P. Wachsmann from the original 1914 text "Systematik der Musikinstrumente. Ein Versuch", <i>ZfE</i> 46: 553-590).
<i>Gymnasium</i>	<i>Gymnasium. Zeitschrift für Kultur der Antike und humanistische Bildung</i>
<i>ICTM</i>	<i>International Council for Traditional Music</i>
<i>JdI</i>	<i>Jahrbuch des Deutschen Archäologischen Instituts</i>
<i>JHS</i>	<i>Journal of Hellenic Studies</i>
<i>JSS</i>	<i>Journal of Semitic Studies</i>
<i>Kerameikos</i>	<i>Kerameikos. Ergebnisse der Ausgrabungen.</i> Vols. I-. Hirmer Verlag.
<i>Levant</i>	<i>Levant. Journal of the British School of Archaeology in Jerusalem and the British Institute at Amman for Archaeology and History</i>
<i>LIMC</i>	<i>Lexicon Iconographicum Mythologiae Classicae</i> , Vols. I-VIII (1981-1997)
<i>MEFRA</i>	<i>Mélanges de l'École française de Rome, Antiquité</i>
<i>MiB</i>	H. Bessler & M. Schneider (eds.) , <i>Musikgeschichte in Bildern</i> . Leipzig.
<i>MiB-Ägypten</i>	Hickmann, H. , 1961, <i>Ägypten. MiB</i> , Band 2/1
<i>MiB-Griechenland</i>	Wegner, M. , 1970, <i>Griechenland. MiB</i> , Band 2/4
<i>MiB-EtrurienRom</i>	Fleischhauer, G. , 1964, <i>Etrurien und Rom. MiB</i> , Band 2/5
<i>MiB-Mesopotamien</i>	Rashid, S.A. , 1984, <i>Mesopotamien. MiB</i> , Musik des Altertums. Band 2/2
<i>MGG</i>	Blume, F. (ed.) , 1949-79, <i>Die Musik in Geschichte und Gegenwart (Allgemeine Enzyklopädie der Musik)</i> . Vols. i-xvii. (1st edition)
² <i>MGG</i>	Finscher, L. (ed.) , 1994- <i>Die Musik in Geschichte und Gegenwart (Allgemeine Enzyklopädie der Musik)</i> . Vols. i-xx. (2nd edition)
<i>Muse</i>	<i>Muse. Annual of the Museum of Art and Archaeology, University of Missouri</i>
<i>MusikTanz</i>	Wegner, M. , 1968, <i>Musik und Tanz. Archaeologia Homerica</i> U. Göttingen.
<i>NGDMI</i>	Sadie, S. (ed.) , 1984, <i>The New Grove Dictionary of Musical Instruments</i> . Vols. i-iii.
<i>NGDMM</i>	Sadie, S. (ed) , 1980, <i>The New Grove Dictionary of Music and Musicians</i> . Vols. i-xx.
<i>OJA</i>	<i>Oxford Journal of Archaeology</i>
<i>OpAth</i>	<i>Opuscula Atheniensi</i>
<i>PCPS</i>	<i>Proceedings of the Cambridge Philological Society</i>
<i>Phoenix</i>	<i>Phoenix. The Classical Association of Canada</i>
<i>PM</i>	Evans, J.A. , 1921-1936, <i>The Palace of Minos at Knossos</i> . Vols. i-v and Index. London.
<i>Prakt</i>	<i>Πρακτικά τῆς Ἀρχαιολογικῆς Ἑταιρείας</i>
<i>RA</i>	<i>Revue Archéologique</i>
<i>RDAC</i>	<i>Report of the Department of Antiquities, Cyprus</i>
<i>SCE</i>	Gjerstad, E. et al. , 1934-72, <i>Swedish Cyprus Expedition</i> . Vols. I-IV. Lund and Stockholm.

<i>Stringed</i>	Maas, M. & McIntosh Snyder, J. , 1989, <i>Stringed Instruments of Ancient Greece</i> . New Haven and London.
<i>Survey</i>	Marcuse, S. S. , 1975, <i>A Survey of Musical Instruments</i> , London.
<i>RidIM/RCMI</i>	<i>Revue Internationale d'Iconographie Musicale/Research Center for Music Iconography</i> .
<i>Rombos</i>	Rombos, T. , 1985, <i>The Iconography of Attic Late Geometric II Pottery</i> , SIMA (Pocket Book 68), Jonsared.
<i>SIMA</i>	<i>Studies in Mediterranean Archaeology</i>
<i>Syria</i>	<i>Syria. Revue d'art oriental et d'archéologie</i>
<i>Tölle</i>	Tölle, R. , 1964, <i>Frühgriechische Reigentänze</i> . Waldsassen.
<i>West</i>	West, M.L. , 1992, <i>Ancient Greek Music</i> . Oxford.
<i>Workshops</i>	Davison, J. , 1961, "Attic Geometric Workshops", <i>Yale Classical Studies</i> 16. New Haven.
<i>ZfE</i>	<i>Zeitschrift für Ethnologie</i>

Museums

<i>AshM</i>	Ashmolean Museum, Oxford
<i>ArhMRhodes</i>	Archaeological Museum of Rhodes
<i>BM</i>	British Museum, London
<i>Boston</i>	Museum of Fine Art, Boston
<i>Brussels</i>	Musées royaux d'Art et d'Histoire, Cinquantenaire
<i>CM</i>	Cyprus Museum, Nicosia
<i>Copenhagen</i>	Danish National Museum, Copenhagen
<i>NyCG</i> <i>hom</i>	Carlsberg Glyptotek, Copenhagen
<i>HM</i>	Herakleion Archaeological Museum, Crete
<i>HN</i>	Hagios Nicolaos Museum, Crete
<i>KSM</i>	Knossos Stratigraphical Museum
<i>LM</i>	Limassol District Museum, Cyprus
<i>Louvre</i>	Musée du Louvre, Paris
<i>Larnaca</i>	Larnaca District Museum, Cyprus
<i>Munich</i>	Staatliche Antikensammlungen und Glyptothek, Munich
<i>NMA</i>	National Archaeological Museum, Athens
<i>MSM</i>	Malia Stratigraphical Museum, Crete
<i>MMNY</i>	Metropolitan Museum, New York
<i>MFF</i>	Maison des Fouilles Françaises, Cyprus

Dates

EBA, MBA, LBA	Early, Middle, Late Bronze Age
EM, MM, LM	Early, Middle, Late Minoan
EH, MH, LH	Early, Middle, Late Helladic
EC, MC, LC	Early, Middle, Late Cypriote
EIA	Early Iron Age
PG, SPG	Protogeometric, Sub-Protogeometric
EPG, MPG, LPG	Early, Middle, Late Protogeometric
PGB	Protogeometric B
EG, MG, LG	Early, Middle, Late Geometric
CG	Cypro-Geometric
EPA, MPA, LPA	Early, Middle, Late Protoattic
EPC, MPC, LPC	Early, Middle, Late Protocorinthian
CA	Cypro-Achaic
CC	Cypro-Classical

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Chapter 5

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1. INTRODUCTION

1.1 Aim of the present study

This thesis will examine the iconography of musical instrument performances in Greece and Cyprus from the 11th to the 7th centuries BC and will attempt to provide an insight into the meaning of the various types of musical imagery during that period. Musical imagery is one of the genres that provide an iconographic link between the Late Bronze Age and the passage to the Early Iron Age (hereafter LBA and EIA respectively) in Greece. Figurative scenes from the period after the collapse of the Mycenaean palaces, at the end of the 2nd and the beginning of the 1st millennium BC, are very rare in Mainland Greece. In the Sub-Mycenaean and Protogeometric periods abstract decoration prevailed in the Aegean and we know of very few images of animals or isolated human figures on vase painting and other media (Coldstream 1968, 1988; Schweitzer 1971; Desborough 1972; Snodgrass 1971; Carter 1972; Benson 1970; Lemos 2000, 2002).¹ Crete, however, presents a different picture, with a considerable amount of narrative scenes from both the Sub-Minoan and the Protogeometric periods.² During the same period (11th and 10th centuries BC) figurative representations were produced on a variety of media in Cyprus, which influenced the artistic production in the Aegean whilst interacting culturally with Crete (Karageorghis & Des Gagniers 1974; Iacovou 1988; *Coroplastic ii*; Morris 1985; Rethymiotakis 1997; Karageorghis & Stambolidis 1998; Coldstream 1988).

Representations of instruments and music making are attested in the Bronze Age in both the Aegean and Cyprus, although their preserved number is limited when compared to the corpus of Minoan-Mycenaean and Cypriote pictorial output.³ Despite that, musical scenes are among

¹ From the Protogeometric period in the Mainland and the Aegean we have images of birds and horses usually drawn in hidden areas of the vases, bird-shaped vases and votive figurines of bulls and of a stag (Nicholls 1970, 26 ff.; Carter 1972, 31-2; Lemos 2000, 12; 2002). Protogeometric human figures with mobile legs are known from Lefkandi, Skyros and Athens; a related example (without legs) comes from Ialysos (see Appendix I, Cat. 57-59, 129, 130). From Lefkandi also comes the figure of a hybrid creature ("centaur") as well as the only Protogeometric representations of human figures in vase painting (archers) (Desborough 1972, 192 pl. 42B; Popham, Sackett & Themelis 1980, 127 ff., fig. 4, 345, 348, pls. 210, 270; Lemos 2000), but in areas such as Athens, Eretria and Argos it is not until the Middle Geometric period that human figures appear in vase painting (Carter 1972, 28 ff.; Schweitzer 1971, pls. 27-8; Benson 1970).

² For the Cretan Sub-Minoan and Protogeometric human and animal representations see Coldstream 1988; Coldstream & Catling 1996; D'Agata 1997; Naumann 1976; Lebessi 1985 and 2002. The subjects include quadrupeds, ships, bird-and-tree, fish, fantastic creatures (sphinx and *hippalektryon*), hunting scenes, a naiskos with a female figure inside and watchers looking through the windows and roof, as well as human figures in various poses (the latter depicted in vase painting, bronzework and terracotta). To these we can add two figurines playing the aulos (Appendix I, Cat. 72 and 143).

³ The Minoan and Mycenaean musical representations have been recently catalogued by Younger (*Aegean* 66 ff.). From Bronze Age Cyprus musicians are depicted on two bronze stands (Catling 1964, 203 ff, pls. 34, 35; 1984), one terracotta figurine (*Coroplastic ii*, pl. VII:2), a glazed bowl and possibly

the few pictorial themes that are represented in the early 1st millennium BC. In Crete, the Protogeometric figurative scenes include images of musicians playing wind instruments that possibly emanate from the Late Minoan tradition and which carry on being portrayed in the early 1st millennium (Appendix I, Cat. 72 and 143). Similarly, musical scenes become frequent in Cyprus from the Cypro-Geometric I onwards (Appendix I, Cat. 35-37 and 76-84). In the Aegean, the forms of a human being and a musical instrument were fused together in a class of bell-shaped figurines bearing mobile legs like clappers (Appendix I, Cat. 57-59, 129, 141). As narrative scenes become common and outweigh the patterned arrangement of geometric motifs in the 8th and 7th centuries BC, representations of musical performances constitute some of the new subjects that are included in the iconographic repertoire and hold a prominent place in the Greek artistic production of the Geometric and Orientalising periods.

The thematic link provided by this particular genre between the Bronze and Iron Ages is very important because of the semantic value of musical scenes. Music, as well as oral poetry, song and dance, is predominantly a temporal art, created and perceived whilst its rhythmic and melodic elements are unfolded consecutively in time, as a patterned arrangement. In essence, music making is a patterned behaviour, that is, behaviour shaped by the culture of which it is a part. In this sense it is closely linked with other patterns of behaviour such as ritual. As a consequence, the direct use of musical instruments in social life is connected naturally to ritualistic conceptions and religious beliefs. Furthermore, like all forms of art, the creation and performance of music is a social act closely linked to other social events, groups of people, hierarchies and the beliefs and trends of a given society. Therefore, the creation of a musical scene alluding to actual experiences of musical performances is automatically a reference to these sets of concepts, irrespective of whether an image is representing a *specific* performance or not. Because music making is learned and practiced within a socio-cultural context, the performance of an instrument as well as associated issues such as the instrument's morphology/construction, playing technique, acoustics/sound characteristics and symbolic meaning are also parameters influenced by socio-cultural factors (Hood 1971; Schutz 1977; Merriam 1963; Nettl 1964, 1956 and 1983; Blacking 1973, 1992 and 1998). A number of these parameters (but not all of them) can be manifested visually in a musical scene and are open to a certain degree to iconographic analysis.

It is this deep interconnection of music with ritual practices and other fundamental social activities of a given community which, I believe, encouraged the few representations of

a cylinder seal (*Aign* 60-1, III/1, 2, figs. 25, 26; *SCE I*, 474, pl. LXXVI:67, CL:11; Myres 1914, 274 no. 1574).

musicians at the beginning of the Iron Age and caused the evolution of musical iconography in the 8th and 7th centuries BC in the Aegean. The concept of an instrument (like the concept of music itself) may differ from one period, culture or social formation to another. Therefore, the examination of the establishment of or the change in a trend in music may also elucidate broader aspects of cultural and social activity closely linked to it. For these reasons, I believe that analysing the musical scenes will contribute to the assessment of continuity between the LBA and the EIA in terms of art and culture, will cast light on certain aspects of the cultural relations between the Aegean, Cyprus and the Near East and will aid significantly our understanding of the cultural changes taking place early in the 1st millennium.

The musical scenes produced in Cyprus on a variety of media and the earliest eastern import with musical iconography deposited at Lefkandi (Appendix I, Cat. 186) by the end of the Protogeometric period bring us to the issue of the cultural interactions of Greece with Cyprus and the Eastern Mediterranean and open the question of oriental influences on the visual arts and music of the Aegean. For the past decades, scholars have been looking for the reasons behind the progressive increase of figurative scenes in the Aegean and the renewed interest in narrative from the Geometric period onwards. It is generally accepted that contact with the east played an important role in the “revival” of pictorial representations and that oriental influences in the art and culture of Greece prior to the 8th century BC were the result not only of exchanges and trade but also of immigrant craftsmen who lived and worked in the Aegean (Dunbabin 1957; Coldstream 1977; Boardman 1980; Hoffmann 1997; Morris 1992). Furthermore, some scholars compared the pictorial with the poetic narrative and ascribed the creation of figurative scenes to the impact of the transmission of the Homeric epics, whereas others advocated for the importance of the Minoan-Mycenaean tradition and looked for influences from heirlooms or chance discoveries of artefacts from the Bronze Age past.⁴

Similarly, certain figures of musicians composed in the Geometric period have been considered as evocative of the bardic tradition, whereas links with the Minoan-Mycenaean past have also been claimed with regard to the representations of lyre players and circle dances (*MusikTanz*; Padgett 1995; Langdon 1995). The appearance of the numerous musical scenes from the 8th century onwards, however, is usually regarded as part of the oriental transmission within the cultural network of the Iron Age. In this respect, innovative scenes or

⁴ The list of contributions to the discussion of these issues is too extensive to be included here; see for instance Kirk 1949; Johansen 1967; Schefold 1964; Webster 1955 and 1958; Snodgrass 1979, 1980, 1987 and 1998; Boardman 1983; Langdon 1989; Morris 1997; Powell 1997; Ahlberg-Cornell 1992; Sheedy 1992; Cavanagh & Mee 1995; Rystedt 1997.

works that bear strong oriental stylistic and/or compositional features are explained as local adaptations inspired by Near Eastern imagery (for instance Ahlberg 1967; Kourou 1985) whereas a few cases have also been thought to be imports from the East (Morrey & Fleming 1984, 75). In order for musical scenes to have a meaning, however, it is important that their content (the performance of a certain instrument) is recognised by the viewers and this knowledge cannot be transmitted without associations between people.⁵ In this respect the iconography of the EIA offers a picture of dynamic transformations in the musical practices in the Aegean and Cyprus. The impact of the contacts between Mainland Greece, Crete, Cyprus and the neighbouring civilisations that have been attested archaeologically, can also be detected on the level of musical expression. In this view, the examination of the Cypriote connection forming the bridge between the Aegean and the Near East has been considered of primary importance for the understanding of the origin and character of external influences.

The work focuses on all types of artefacts with musical iconography dating from the 11th to the 7th centuries BC, which are catalogued here in Appendix I. These include two-dimensional representations (vase paintings, seals, relief decoration, relief sculpture) and three-dimensional representations (terracotta and bronze figurines). First-hand study of the iconographic material has been considered very important, especially as various catalogues and publications do not adequately illustrate the artefacts. However, due to the large number and the dispersion of material in various museums around the world, such a study has been confined to Cypriote artefacts stored in the Museums of Nicosia, Larnaca, Limassol and Kouklia in Cyprus and to those exhibited at the Archaeological Museums in Athens (National Museum), Herakleion, Sparta, Olympia, in the collections of the Musée du Cinquenaire in Brussels, of the British Museum in London and of the Ashmolean Museum in Oxford. Rather than focusing on a limited range of material or local production that would enable exhaustive first hand examination, this study relies on large sampling for the analysis of the phenomenon of musical iconography in the EIA. For the study of ethnographic material I relied on the Reid collection of musical instruments in Edinburgh, the collection of Phoebos Anoyanakis in Athens and the Museum of Musical Instruments in Brussels.

⁵ It is important to stress that the transmission of a musical instrument from one culture to another does not necessarily mean that the rhythms or musical system of that culture are also transmitted along with the instrument. It is possible for a culture to adopt a musical instrument which is then used in the performance of indigenous music; in this case the music may be of a completely different style and therefore the playing technique of the instrument may be adjusted according to the needs of that music genre. This is, for example, the case of the orchestral clarinet as well as that of the Arab zither known as *kanun* [Greek κανονάκι (*kanonaki*)], which are used in traditional Greek music today (Anoyanakis 1979; Beaton 1980, 5).

It is vital for the study of any kind of imagery to consider exactly what is represented. In the case of musical iconography, this implies the understanding of the types of instruments that are depicted. For this reason, the primary aim of this work is to establish a *typology* of Greek and Cypriote musical instruments in connection with the current ethnomusicological research and organological classification systems. The first part of chapter 2 describes the concepts and tools relevant to the instrument classification process. The ultimate aim is hermeneutical penetration and *interpretation* of the scenes, the understanding of the meaning they held for their contemporary viewer and the symbolic relationships that they embody. The methodological aspects regarding the analysis of iconographic representations in general and musical iconography in particular are presented in the second part of chapter 2.

It was felt that any attempt to interpret the musical scenes would benefit from the classification process and the establishment of typological varieties of the instruments that were performed in Greece and Cyprus. For this reason, chapters 3-5 are devoted to the typological analysis of the musical instruments; in these chapters I examine the variations that are found within the classes of aerophones, idiophones and membranophones (see also chapter 1.2). The typological analysis is based not only on the representations of these instruments but also on the examination of specimens which are found in Greek and Cypriote archaeological contexts. A selection of the surviving musical instruments, upon which I based my observations on typology, is catalogued in Appendix II. In my discussion I have reviewed instruments from all periods in order to present the diachronic use of the various types and to study their development, with special emphasis given to their morphological features and playing technique (as outlined in chapter 2). In connection with the instrumental analysis, further iconographic issues are dealt with such as style, compositional syntax and the individual motifs of an image; the artefact types bearing musical representations and their find context (when known) are also taken into consideration when analysing the signification of the scenes. Imagery typology is addressed in chapter 6, where the iconographic variants of the EIA musical scenes have been classified and presented in a comprehensive manner.

Both the iconographic and the instrumental catalogues (Appendices I and II) contain important information about the artefacts (description, dimensions, find context, bibliographic references) which is not repeated in the main text; the reader is requested to cross-reference with the catalogue entries to retrieve this information. In the main body of the thesis, reference to a specific example from the iconographic catalogue (Appendix I) is made by its index number (Cat.1, Cat.2 etc.). An instant review of the material under discussion is offered when instrument typology is addressed, in which case the relevant catalogue entries include artefact

type abbreviation, index number, artefact entry heading, museum details and provenance (for instance: **(VP) 1) Oenochoe**. Tübingen Universitat Inv. No. 2657. From Athens, Dipylon). Reference to a specific example from the instrumental catalogue (Appendix II) is made by using the typological abbreviation and the index number of the specimen (for example, the seistron from Archanes is referred to as SE.1). For the abbreviations used see Appendices I and II. All measurements are in meters unless otherwise stated.

1.2 Previous research on the iconography of musical instruments

Wegner was the first to address the musical imagery of the Geometric, Archaic and Classical periods in his treatise of ancient Greek musical life (Wegner 1949); he based his discussion of the instruments on the literary and iconographical evidence mainly from the Classical period. In 1954 some of the Greek iconographic material was reviewed by Behn in his important study of musical instruments from the antiquity and the Early Middle Ages that brought together material from Europe, the Near East and Egypt (*Behn* 79 ff.). The volume of the series *Musikgeschichte in Bildern* devoted to the ancient Greek material (*MiB-Griechenland*) illustrated a variety of musical instruments being performed, but it predominantly comprised scenes from the Classical period.

The first comprehensive catalogue of the iconographic material from the Bronze and Early Iron Age Greece, Cyprus, including examples from Anatolia and the Levant, was made by Aign in 1963; he documented all the entries of his catalogue with drawings of the musicians and also discussed issues of morphology and playing technique of the instruments. Musical representations of the Geometric period were catalogued along with other figurative scenes by Tölle (1964), who also provided a table with drawings of all the stringed instruments depicted on pottery and metalwork from the Geometric period (*Tölle* 27 ff., Table V). An extensive catalogue of the Geometric scenes, including not only musicians, but also dancers and mourners, was made by Wegner in 1968 (*MusikTanz*). He also discussed the references to music found in the Homeric epic and provided drawings of the stringed instruments, but did not fully discuss the imagery. The only systematic study of ancient Greek musical instruments which classifies them within the frame of the four instrumental classes (aerophones, chordophones, idiophones and membranophones) was done by Paquette, who discussed issues of playing technique and construction to a considerable extent and made useful comparisons with contemporary musical instruments (Paquette 1984). Nevertheless, Paquette did not address any iconographic issues, but mainly illustrated his survey with well-chosen, yet mostly Classical representations.

Issues regarding the construction, typology and performance of aerophones were addressed by Landels in his doctoral thesis and by Becker in his monograph on ancient and medieval wind instruments (Landels 1960; Becker 1966). They discussed in depth the acoustics of the Greek *aulos* and focused on technical and morphological aspects, also providing a critical and hermeneutical commentary on the Greek literary references. They used pictorial examples from the Classical period to support the points they made about the performance technique of the single- and double-beating reedpipes, and their observations are very important for the understanding of the *double aulos* (set of two reed-pipes) performance, which is also represented in the EIA; they nevertheless did not address pre-Classical iconographic material.

Extensive research on the iconography, performance, construction and typology of Greek stringed instruments has been undertaken by many scholars, who have given considerable emphasis to the Bronze and Early Iron Age representations. In her doctoral thesis, Roberts discussed all the chordophones found in the Greek iconographic repertoire from the Bronze Age to the Hellenistic period and produced reconstructions of stringed instruments based on representations from the Classical period. In later articles she addressed further issues of manufacture and playing technique (Roberts 1974, 1980 and 1981). The latest collective treatment of the subject of ancient Greek stringed instruments was by Maas & Snyder (1989), who adopted a combination of historical-iconographic and typological approach. They arranged the iconographic material chronologically, devoting the first two chapters to pre-Classical representations, one for the Bronze and the Early Iron Ages and another for the Archaic period (*Stringed* 1-52). Within the chronological framework of each chapter they discussed in great depth the morphological and iconographic features of the different types, also addressing historical issues and terminology. A similar typological-iconographic approach has been taken by Lawergren who, in a series of articles, tried to fit the Greek material into a cross-cultural Eastern Mediterranean organological framework (Lawergren 1984, 1985, 1993, 1998). The Bronze Age representations of harpists have recently been re-examined by Schaick (1998).

In the last decades, more iconographic and archaeological material from Greece, Cyprus and the Levant pertinent to music has been excavated and published; it is thus essential to re-evaluate our views of early Greek music in the light of the new discoveries that need to be assessed systematically. My work focuses on the examination of the iconography of aerophones, membranophones and idiophones that has received very little attention so far, in contrast to the extensive work that has been done on the morphology and iconography of

chordophones. For the purposes of a whole-rounded evaluation of the EIA musical imagery, I have included in my iconographic catalogue (Appendix I) the representations of string instruments, where the morphological features of the instruments and their playing technique are described in detail, although these are not discussed in the main body of the thesis.⁶

1.3 Chronology

The focus of the current thesis is the content and possible meaning of images with musical iconography. Although stylistic features are addressed, the lack of homogeneity in the material under discussion, the diverse localities, and the fact that we are dealing with isolated specimens of different classes of artefacts often without a known archaeological context do not give scope for chronological considerations. Therefore, I have adopted the proposed dates for the artefacts and when there is difference in scholarly opinion it has been noted in the catalogue. In this work I generally use the terminology of the ceramic styles to define a period, although occasional references to sculptural styles may be made throughout the text. For the relative chronology of the Bronze and Iron Ages in Greece and Cyprus I follow the chronological schemes proposed by Åström 1987; Warren & Hankey 1989; Dickinson 1994; Desborough 1972; Lemos 2002; Coldstream 1968 and 1977; Cook 1960; Cook & Dupont 1998 and Gjerstad (*SCE IV.3*, 82), a synthesis of which is presented in Table 1.1.

In setting the chronological framework of this study, the disparities between the Greek and Cypriote phases had to be reconciled. The 11th century BC has been taken as the starting point, since the Late Cypriote IIIB marks the transition from the LBA to the EIA in Cyprus (Iacovou 1988, 2; 1989), correlating with the Sub-Minoan period, and the beginning of the Cypro-Geometric I coincides roughly with that of the Sub-Mycenaean period in the Aegean. The scope of this study, however, reaches back earlier than the 11th century BC due to the fact that comparisons with the Minoan-Mycenaean musical scenes are readily made throughout the text and therefore the Bronze Age material is also discussed extensively. The end of the Orientalising period, with the evolution of the Archaic style in sculpture and the advent of Black Figure vase painting in Greece,⁷ sets the chronological limits of this study, although in Cyprus this date does not signify major stylistic changes, but simply marks the transition from the Cypro-Archaic I to the Cypro-Archaic II period. The term Early Iron Age (EIA) is used in

⁶ A doctoral research on the stringed instruments of the Bronze and Early Iron Age is currently undertaken by E. Mikrakis at the University of Heidelberg.

⁷ Boardman 1978 and 1998; Cook & Dupont 1998.

this work in a broad sense, referring to the 11th- 7th centuries BC. Chronological abbreviations are listed in the main list of abbreviations.

Greece		Crete		Cyprus	
Early Neolithic: 6000-5000 Middle Neolithic: 5000-4000 Late Neolithic: 4000-3000				Neolithic	6000-3800
				Chalcolithic	3800-2300
EH:I	3600-2900	(Prepalatial) EM:I	3600-2900		
EH:IIA	2900-2450	EM:IIA	2900-2550		
EH:IIB	2450-2300	EM:IIB	2550-2300	EC:I	2300-2075
EH:III	2300-2100	EM:III	2300-2000	EC:II	2075-2000
MH:I	2100-1900	MM:IA	2000-1900	EC:III	2000-1900
		(Protopalatial) MM:IB	1900-1800	MC:I	1900-1800
MH:II	1900-1700	MM:II	1800-1700	MC:II	1800-1725
MH:III	1700-1600	(Second Palatial) MM:III	1700-1600	MC:III	1725-1600
LH:I	1600-1500	LM:IA	1600-1480	LC:I	1600-1450
LH:IIA	1500-1450	LM:IB	1450-1425		
LH:IIB	1450-1390	(Final Palatial) LM:II	1425-1390	LC:IIA	1425-1375
LH:IIIA1	1390-1360	LM:IIIA1	1390-1360	LC:IIB	1375-1325
LH:IIIA2	1360-1310	LM:IIIA2	1360-1280	LC:IIC	1325-1200
LH:IIIB1	1310-1250	(Postpalatial)LM:IIIB	1280-1190		
LH:IIIB2	1250-1190				
LH:IIIC	1190-1065	LM:IIIC	1190-1100	LC:IIIA	1200-1125
Sub-Mycenaean	1065-1015/1000	Sub-Minoan	1100-990/970	LC:IIIB	1125-1050
				CG:I	1050-950
EPG	1015/1000-975	EPG	990/970-920	CG:II	950-850
MPG	975-950				
LPG/SPG	950-900				
EG:I	900-875	MPG	920-875		
EG:II	875-850	LPG	875-850	CG:III	850-750
MG:I	850-800	PGB	850-810		
MG:II	800-760	EG	810-790		
LG:IA	760-750	MG	790-745	CA:I	750-600
LG:IB	750-735	LG	745-710		
LG:IIA	735-720				
	(EPC: 720-690)				
LG:IIB	720-700	Transitional	710-700		
EPA	700-675	Early Orientalising	700-680		
	(MPC: 690-650)				
MPA	675-650	Middle/Late Orientalising	680-600		
	(LPC: 650-640				
	Transitional: 640-625				
	EC: 625-600)				
LPA	650-600			CA:II	600-475

Table 1.1: Greek and Cypriote chronology, approximate dates.

2. METHODOLOGY

2.1 The theoretical framework of classification

The process of classification is fundamental to human thinking; it is an attempt to comprehend a sizeable and profound body of knowledge. Throughout the history of mankind, classifying information in any cognitive field is a general response to the need to organise this data in a logical way that enables comparisons and allows its transmission and further management.

Every classification process is based on finding and grouping concepts in such a way that it becomes possible to organise selected entities from a chosen domain in a meaningful way. These concepts are shaped by the *nature of the entities* in question and the *scope of the classification* itself as it occurs within the general cultural framework of society.¹ The outcome can have various forms according to the way data is processed.

There are two fundamental distinctions in classificatory methods: A) Those that include a set of classes that contain stages of subdivision (described variously as artificial, scientific, downward, etc or the observer's classification or taxonomy). The organisation in such schemes is hierarchical and it matches data to specified definitions; it embodies a cognitive process where one departs from the highest and most general order and aims to describe levels of variation within it (usually labelled as order, sub-order, class, sub-class etc.) down to the level of the ultimately particular. B) Alternatively there are systems where subgroups are perceived as variables or changing entities (known as perceived, natural, upward or emic classification or typology).² These systems try to be non-hierarchical and are sensitive to the qualitative features of the data; their point of departure is that since there are no clear boundaries between species in nature, classificatory representations that assist man in

¹ For a discussion on the numerous classificatory attitudes and the complexity of their relation to the social parameter see the various essays in Roy & Reason 1979.

² The terms "emic" and "etic" were introduced by the linguistic anthropologist Kenneth Pike in order to define two perspectives that can be employed in the study of a society's cultural system in analogy with the two perspectives, phonemic and phonetic, used in the study of a language's sound system (Pike 1975). A similar dichotomy has been recognised for centuries by biologists and botanists, who distinguished between natural and artificial classification. But the emic-etic distinction is essentially one regarding the nature of the knowledge claimed rather than the manner in which that knowledge was obtained. The terms have been adopted by a number of cognitive fields such as folklore, philology, education, medicine, anthropology etc. and this distinction is employed in the fields of ethnomusicology and archaeology (Hodder 1986, 132 ff; Kartomi 1990). Recently they have been used in the study of ancient dance (Naerebout 1997).

understanding nature similarly ought to focus on the manifold interconnections of semantic fields of data.

Each method of classification emphasises a different perspective, reflects different aspects of reality and both methods and their results are culture specific (Roy 1979, 10, 26 ff.). The delineations/demarcations provided by artificial classifications are by no means false but scholarship has shown that they are ontologically partial. On the other hand, the polyphony of semantics that arises out of natural classifications can result in oppressively large amounts of information and, despite yielding inherent taxa, still remain non exhaustive in presenting an integral view of the nature of the data, as particular discriminations might still be obscured. In essence classificatory practice can linger between the two extremes and combine elements of both, thus creating various meta-frameworks relevant to specific cognitive fields.

Of fundamental importance in every classification process is the choice of variables, the sets of features (also known as keys) adopted to distinguish and describe categories. In essence, all classifications bear a certain degree of arbitrariness because keys are mental constructs and, for practical reasons, a percentage of cognitive material will always be excluded. In general, the fewer the keys employed, the more generalised, arbitrary and distant from reality the scheme is.³ Hence multi-feature or faceted approaches with multiple semantic levels have been proposed in different fields of scholarship to ensure that the selection of keys is relevant to the nature of the data rather than merely superimposed upon it.

Nevertheless, not only the number and nature but also the association among keys is an important factor determining the degree of variability. In this respect, the notion of *similarity* as opposed to contrast is essential. Unlike monothetic classification that results in exclusive taxa, faceted classification monitors arbitrariness by grouping together items with the greatest number of shared features which “empirically appear to be essentially related” (Kartomi 1990, 19) in the manner of “family resemblance” (Roy 1979, 11). Such polythetic classification, also known as paradigmatic or faceted grouping, focuses on presenting the gradation in relationship between intersecting facets of the nature of the data rather than on creating distinct boundaries between taxa. Single features are neither essential to a group, nor sufficient to allocate an item to a group. In this way, differences are assessed relative to the

³ Classifications relying on single sets of features are often described as monothetic (Roy 1979, 10).

similarities and dimensions of *variation* can be identified (Hodder 1986, 135; Kartomi 1990).

2.2 Musical instruments and classification

2.2.1 Defining musical instruments

As Dournon points out “the concept of an instrument, like the concept of music itself, differs from one culture or period to another....tools, weapons, vessels and other utensils may be used as rhythmical instruments during a festival or a ritual and then returned to their ordinary use” (Dournon 1992, 248). In the same way various scholars have tried to provide as specific answers as possible to the question of what a musical instrument is, according to their special interests; for example, Kvifte regards a musical instrument as “the tool of playing technique” (Kvifte 1989, 6) whereas Hood views it as a codification of multiple and unique information (Hood 1971, 123). A broad organological definition embracing all interests would consider any apparatus or device made by man in order to produce sound or sounds as a musical instrument, but this has given rise to the problem of which sounds can be regarded as musical.

For more than a century organological and ethnomusicological research has clearly demonstrated that musical instruments are multifaceted entities. They are objects with physical qualities (size, material, decoration) resulting from the technical abilities of their producers craftsmen. They produce sound in a variety of different ways (blowing, plucking, beating etc.) and each of them bears specific acoustic properties. They complement a particular human action, that of creating musical sound, forming a twofold relationship with the performer and the variety of playing techniques. As a consequence, musical instruments are an integral part of musical performance, a human activity associated with a multitude of social and cultural aspects of the community. Being inseparable from the act of performance, they are closely linked with specific actions, social events, groups of people, hierarchies, beliefs and trends of a given society.

2.2.2 Classifying musical instruments: from etic categories to emic knowledge

Cultures around the world have developed various ways of classifying musical instruments and ensembles, according to the way in which they are conceived as cultural phenomena with specific role and significance in society. For example, early Christian writers like Clement of Alexandria and St. Augustine perceived music in theological grounds as a

spiritual form of experience of the unity of God and therefore regarded the human voice as the supreme instrument and most appropriate for the praise of God, the human being subsuming all musical instruments (Kartomi 1990, 137 ff.). Accordingly, the Javanese and Chinese classification of musical instruments according to their material of construction reflects the broader cosmological views of these societies; in the Javanese notion, each material has a particular spiritual significance and endowed the instrument with magic power, whereas the Chinese associated the metals with the eight winds and the use of particular instruments assured control over the weather, the seasons and in effect the welfare of the state (Kartomi 1990, 40, 93).⁴ Meeting totally different needs, European taxonomical systems such as that of Mahillon or Hornbostel and Sachs of the late 19th and early 20th century were devised primarily for the classification of museum collections of musical instruments. These systems were descriptive inventories of instruments on purely morphological and acoustic grounds resulting from objective observation.

From the above examples, the first three are emic schemes; they emerge naturally from the society that created them and reflect the broader ideas of the members of that culture about social structure, philosophy, religion and performance practice amongst others. The fourth example is an etic scheme, an artificial creation devised by an individual observer aiming to serve the purposes set by its creator, whether scientific, museological or other (Kvifte 1989, 89). In other words, emic conceptual schemes and categories are regarded as meaningful by the members of the culture under study, whereas etic conceptual schemes and categories are appreciated by the community of scientific observers. Both emic and etic knowledge can be obtained either through elicitation or through observation, as it is possible both for objective observers to infer native perceptions and for native informants to possess scientifically valid knowledge.⁵ The difference lies in the purpose of the classification and, as a consequence, the classificatory criteria that are employed in each case.

Etic approaches organise the data logically by using scientific and measurable criteria that have universal validity. The functional relationship between activation and vibration of sound, the morphology of the body of the instrument and its acoustic properties are those aspects that have been primarily explored by musicologists of the last century as they are

⁴ Some cultures prefer to classify instrumental ensembles rather than single musical instruments while others rely purely on vocal music without producing musical instruments at all.

⁵ It goes without saying that even an etic scheme contains elements of the culture that bore it, which shapes the scientific objectives (Roy & Reason 1979; Kartomi 1990, 14).

much more susceptible to scientific observation and control than socio-cultural and performance facets.

The system devised by Mahillon in 1893 and later expanded and elaborated by Hornbostel and Sachs in 1914 was the first attempt to classify instruments from all cultures within a common set of extrinsic concepts and categories. These categories were based on etic descriptions of the physical characteristics of sound production and the morphological details of the instruments and did not take into account the existing intrinsic orderings and their validity within the individual cultures.⁶ These scholars processed the information about musical instruments, moving from the general to the particular by logical division in an artificial or downward classification. They employed a “character of division”,⁷ in other words a criterion that differentiates one class from the other. By repeating the procedure in several steps a taxonomist gradually reaches the desired degree of specification by formulating subclasses and subdivisions.

The outcome was a quadripartite system of aerophones, chordophones, membranophones and idiophones (called autophones by Mahillon), in which instruments were classified according to the *nature of the vibrating sound-producing body*.⁸ Mahillon’s criterion of subdivision at the second step was the *method of activation* (playing action, or in other words the means of setting the instrument into vibration, for example plucking, striking, bowing etc.) but at the third step two different characters were applied: a) the *precise form of the sound activator* (i.e. plectrum, keyboard, single/double reed etc.) and b) the *acoustic result* (determined versus undetermined pitch). At the final step *morphological details*, which govern timbre and pitch, are dealt with.

Hornbostel and Sachs included more ethnographic data than Mahillon and by refining his concepts they created more detailed subdivisions at all levels. The result was a multi-levelled

⁶ Hornbostel and Sachs consciously focused on these objective criteria, although they recognised that several facets had been omitted and needed to be treated in individual studies (*Hornbostel-Sachs* 10).

⁷ The character may be an arbitrary selection of one out of many features of the instrument chosen for a limited classificatory end; it can be either single or composite, combining more than one piece of information (Kartomi 1990, 18).

⁸ This system replaced the previous tripartite system of string, wind and percussion.

taxonomy⁹ that aimed to act diachronically and cross-culturally.¹⁰ Although they follow Mahillon in regarding playing action as an important criterion, they deem it inappropriate for classifying chordophones. The criterion of sub-division for membranophones, idiophones and aerophones at the second step was the *method of activation* (playing action), also with implicit *acoustic principles* for the latter, whereas *morphological features* was the key for chordophones. Similar criteria also apply to the seven successive steps and the refinement at lower levels of division touches associated issues of *playing technique*, *construction* and *acoustic result (pitch and timbre)*, aspects that are nevertheless treated in an empirical, non-systematic way and not as separate keys for subdivision (Picken 1975, 558 ff).¹¹

The system received as much criticism¹² for these inconsistencies, as it did praise for its achievements and it definitely opened the way for more detailed and refined approaches to morphology and acoustics, a challenge that was taken up by many musicologists who wished to enhance the system and introduce more criteria. An important argument against the logical arrangement of the system was the failure to use uniform criteria of subdivision and the application of different characters to each class.¹³ In addition, many scholars acknowledged the importance of a systematic description of sound quality as a criterion governing all instruments of all cultures. This led to a new set of etic descriptions concerning *sound characteristics*. Schaeffner opened the way by applying *tone colour* as the criterion of subdivision at the third level of his taxonomy and in effect he subdivides his classes according to the sounding/vibrating material rather than playing technique.¹⁴ Reinhard in

⁹ Hornbostel and Sachs's taxonomy consists of nine levels. Some important new features are the introduction of the sub-class of free aerophones, the subdivision of striking playing action into percussion and concussion, the distinction between idioglottal and heteroglottal reeds and the expanded description of the bodies of all classes.

¹⁰ Like Mahillon, they let the characters of subdivision be "dictated by the nature of the groups concerned" (*Hornbostel-Sachs* 9) and the criteria they used for each class do not always correspond.

¹¹ For a detailed step by step analysis of the characters of division in the Hornbostel-Sachs system see Kvifte 1989, 18 ff.

¹² For commentary and criticism on the Hornbostel-Sachs system see Nettl, 1964, 210-4 and more recently Jairazbhoy 1990, Kvifte 1989, Kartomi 1990. Hornbostel and Sachs in their 1914 article pointed out that inconsistencies within any system are to be expected, since musical instruments "grow and change without reference to any conceptual scheme.... are dynamic and alive, indifferent to sharp demarcation and set form" (*Hornbostel-Sachs* 4).

¹³ Schaeffner and Galpin (in 1932 and 1937 respectively) disagreed with the use of composite criteria by Mahillon and Hornbostel-Sachs; they attempted to create taxonomies that apply single criteria for each step of division and provide more strictly logical subdivisions (Kvifte 1989). Ahlender in 1958 disagreed rather with the higher levels of the hierarchy and required a more careful interpretation of the source of sound on the first step of division; he provided six classes, adding lamellar and reed instruments to the system (Jenkins 1961).

¹⁴ Schaeffner dismissed the use of playing action/technique by Hornbostel-Sachs, because, as he pointed out, an instrument can be played in various ways or that this knowledge might even be lost and escape us, whereas tone colour as a criterion may separate instruments that are close to each other

1960 went further in basing his system purely on the sound produced and took the *tonal possibilities of the instruments* as a starting point for an etic description of characters important for the study of musical style (Kartomi 1990, 181); he deemed that any morphological considerations had been treated adequately and comprehensively by Hornbostel and Sachs and any alteration to their system would bring more confusion (Kvifte 1989, 38). A whole range of questions regarding tone duration, dynamic range and loudness, melodic possibilities, tone colour range and mono-and polyphonic capacity was introduced by Dräeger in 1947 (Kvifte 1989, 45 ff.) followed by Hood in 1971. The latter, being an ethnomusicologist rather than a museum curator, regarded the sound variables as an objective means for analysing musical styles and cultures and, by establishing a graded set of scales for pitch, loudness, density and quality of sound expressed in laboratory terms, he wished to transcend the insufficiencies of western (or any) musical notation (Hood 1971, 93 ff).¹⁵

The quest for a logically coherent classification system of musical instruments made apparent the complexity of the project as it demonstrated that it was not possible to have a system based simply on morphological aspects as Hornbostel and Sachs were claiming, because issues such as playing technique, acoustics, sound characteristics and construction are unavoidably linked to each other, and in turn are intertwined with socio-cultural factors. As a consequence, the cornerstone of the debate gradually became the departure from a mono-dimensional view of musical instruments as physical objects (or, in the case of Reinhard, as sound producers) and instead focused on their multiple facets as complete systems for control and sound production governed by socio-cultural parameters. Scholarly interest gradually shifted away from classification for museum purposes and towards providing rounded descriptions of musical instruments including as many facets as possible. In an article published in 1932 Norlind suggested that besides morphology and sound characteristics, other parameters such as performance practice, geographical distribution, nomenclature and cultural history of the instruments should also be taken into account, while Izikowitz in 1935 had a holistic view of musical instruments as cultural elements whose

in form. Unlike Hornbostel-Sachs, he took the instrument's susceptibility to tension as the starting point of his classification system, but the first step of his subdivision is concerned with the physical structure of the instruments in the same way that the Hornbostel-Sachs system does (Kartomi 1990, 174-6, Kvifte 1989, 26-29; Dournon 1992, 252 ff.).

¹⁵ Kvifte agreed that the four sound variables, namely pitch, loudness, tone colour and duration are measurable concepts with cross-cultural validity that enable the description and evaluation of musical experiences, whereas "physical concepts like energy and frequency are not useful etical categories of musical phenomena because they do not elucidate meaningful differences within the segments of the cultures under study" (Kvifte 1989, 90).

direct use in social life was connected naturally to “religious, ritualistic and other conceptions” (Kartomi 1990, 177-8).

Accordingly, scholars began to introduce explicit descriptions regarding technomorphic, acoustic, anthropological, socio-cultural and performance practice facets. The difficulty lies in *organising* such a vast body of information, since it had become apparent that only with the superimposition of different layers of data (multi-faceted approach) was it possible to illustrate the individuality of each instrument, a process that was irreconcilable with macrotaxonomical systems based on single hierarchies such as those of Hornbostel and Sachs, Galpin, Schaeffner, Ahlender, Montagu-Burton and others. The broadening aspect required new microtaxonomical methods of organising the data and shaping the relations between the various facets. Dräeger, Ramey and Hood constructed their schemes based on the detailed inspection and delineation of an instrument’s characteristics that were considered simultaneously in order to view the instrument in its true complexity. They did not propose new hierarchies, but connected their number of characters, the various facets, to the entries of the Hornbostel-Sachs system, thus expanding laterally the data of the scheme by presenting the ergological, ethnographic, sociological or other type of information in a descriptive, additive fashion (Kartomi 1990, 179 ff; Kvifte 1989, 43).¹⁶

These descriptive systems opened the way for the creation of upward classification systems or paradigmatic schemes over a limited set of data.¹⁷ By focusing on the faceted study of variants the authors aspired to elicit the type of information inherent in a culture-emerging scheme, in other words, to reconstruct emic knowledge regarding the musical experience of a specific instrument or culture. Besides the detailed inquiry into morphological facets¹⁸ and the systematic description of sound variables, the descriptive systems were also concerned with a number of questions that are relevant to social, cultural and religious issues.

The following diagram (Table 2.1) shows how these considerations are organised and approached in a descriptive-classificatory process; the inquiry addresses broad interdependent facets (I, II etc) under which the relevant characters (A, B, etc.) with their divergent variables (1, 2, 3 etc.) are grouped respectively. This diagram is based on Hood’s

¹⁶ See for example Picken 1975, Anoyanakis 1979 and Hood 1971. The latter was concerned to demonstrate visually (with the organogram) the relations between the instruments, leaving to the individual researcher to order the variables according to their research questions.

¹⁷ See systems devised by Elschek and Leisiö in Kartomi 1990.

¹⁸ Dräeger introduces fourteen morphological variables and Ramey thirty nine, giving a far more detailed account than any of the previous taxonomies (Kartomi 1990, 189 ff).

considerations expressed in a descriptive form in his organograms (Hood 1971). It will also form the basis for our examination of EIA musical instruments, with the concession that certain characters or variables can only be speculated, if at all, as we are dealing with archaeological rather than ethnographic material.

I.	<i>Morphological aspects</i>
	A. Description of shape
	1. External
	2. Internal
	B. Material
	C. Manner of construction
	D. Decorative details
	1. Techniques used (incising, embossing, carving, relief, inlay)
	2. Finishes (paint, oil, lacquer, gold leaf, tempera)
	3. Motifs (anthropomorphic, animal, plant, geometric, other)
II.	<i>Performance practice</i>
	A. Playing action
	B. Tuning process
	1. Pitch
	2. Tuner
	C. Position of instrument
III.	<i>Sound variables</i>
	A. Loudness
	B. Pitch
	C. Quality
	D. Density
IV.	<i>Socio-cultural considerations</i>
	A. Relation between sex of instrument and pitch.
	B. Association of instrument with particular social groups and/or social status.
	C. Social evaluation of instrument.
	1. By the performer
	2. By a special group in society
	3. By the whole society
	D. Social status of instrument maker.
	E. Relation between maker and performer (identical/other).
	F. Monetary evaluation of the instrument in a specific culture.
V.	<i>Symbolic considerations</i>
	A. Association with a cult or ritual.
	B. Attribution of magic powers.
	C. Ritual connected with the instrument's manufacture and performance.
	D. Significance for the cycle of man
VI.	<i>Nomenclature</i>

Table 2.1: Diagram of faceted inquiry on musical instruments, based on Hood 1971.

2.2.3. Playing technique

An additional issue was the definition of the *relationship between the instrument and the performer* in an attempt to describe playing techniques more thoroughly. Playing technique does not refer simply to the playing action (the criterion of “mode of activation” introduced by Mahillon) but to a set of several observable manifestations. Hood gave emphasis to the *spatial relationship* which can be perceived visually. He insisted that it should be recorded whether an instrument is “held in a stand, vertically, horizontally, at an angle, between the player’s legs, across his lap, under his arm, over his shoulder, slung at his side, in one hand, surrounding him in a circle, mounted on horseback, hanging in a tree, carried by someone else” (Hood 1971, 133). Ramey, on the other hand, associated playing technique with the broader sense of performance practice, which he includes in a set of anthropological characters. He subdivided the characters regarding performance practice into the following: 1) playing position (angle/height), 2) use of the performer’s body, 3) tuning process (type/tuner), 4) solo and ensemble usage (Kartomi 1990, 187).

Kvifte described playing technique as a directed activity with the objective to accomplish a specific musical effect. In his notion “playing action emerges in relationship to an instrument in the form of a number of visible movements, and with an aural result....It is only meaningful because of its relationship to sound and music theory” (Kvifte 1989, 74-5). He gives the example of the violin, which is considered to be different from the fiddle because of the difference in playing technique even though the physical objects are still identical (Kvifte 1989, 79). In this sense, playing technique is perceived as a property referring to the performer and not to the instrument, in contrast to the way it is presented in the Hornbostel-Sachs and similar systems. As such, it is linked to the identity and social background of the performer and to a number of cultural considerations concerning musical creation and performance, such as tradition, innovation, social changes and external influences.

In order to comprehend and assess playing technique, it is essential that both sides of instrument control, the control actions (movements) on the one hand and the control organs (instrument) on the other, are described separately and in conjunction with each other. This is not a novel notion as many scholars had already tried to broaden the degree of detailed information on both morphological and performative aspects. But Kvifte (1989, 82 ff.) takes these considerations a step further and introduces an all-encompassing perception of playing technique as *a pattern of action based on experience and practical knowledge* (as opposed to theoretical knowledge). In this respect, playing technique is associated with the essence of

performance in a specific socio-cultural environment as well as with the structural elements of a given musical system. Instrument morphology comparisons are less informative on that level since they can only show superficial connections, whereas analysing the playing technique of related instruments is more successful in revealing shared musical (and in effect cultural) features within various communities, groups or cultures.

2.2.4 Visual aids to taxonomy

A few taxonomists have translated their theoretical considerations into visual terms, aiming to codify an ever-increasing body of data in a systematic and easily recognisable way. Hood devised a graphic coding system of “organograms”, which included all the various types of information that we have presented on Table 2.1, and which enabled all the different facets to be represented simultaneously (Fig. 2.1). Elschek developed a similar graphic method for his typological research on willow-bark flutes which included various ergological features (material, construction, decoration) and facilitated quick comparison and identification (Kartomi 1990).

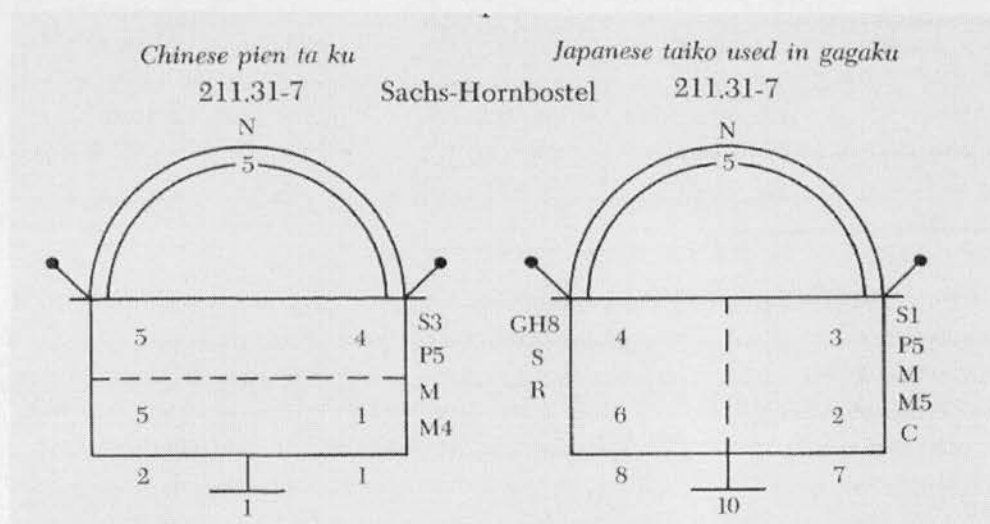


Fig. 2.1: Hood's organograms of a Chinese and a Japanese circular frame drum (*pien ta ku* and *taiko* respectively), both played by two padded beaters. The organograms express visually the shared morphological characteristics of the two instruments, but also show the differences in the way they are held during performance (syncopated line) and in their status within each society; the left hand-side symbols on the *taiko* (lacking from the *pien ta ku*) indicate high value, religious significance and performance by members of the imperial household and of the temples (after Hood 1971, 156).

On a different level, Kvifte also refers to musical terms and instrumental qualities that can be visualised (Kvifte 1989, 103 ff). He takes western musical notation as a prime example of translating pitch into visual terms, but he also refers to representations associated with the action of playing a musical instrument. In this case, we do not have a symbolic taxonomy or

graphic image but the visual translation of a musical experience, for example the image of a particular fingering that produces a specific sound. Such “internal” images can be naturally brought about in association with different aspects of the instrument, the music itself or the playing technique. And it is just possible that they may also underlie the creation of artistic, physical images of musical performance. In this sense, any document that visualises music concretely or abstractly is in principle a subject’s (artist, craftsman or other) reflection on his own experience of musical performance (Seebass 1992, 238).

2.3 Putting images in perspective

Just like musical instruments, images are multifaceted entities and to understand them more than a simple description of their subject matter is necessary. Images are represented on various media (vases, seals, luxury items etc.) created for different purposes and the physical properties of the media (material, shape, size and application) also determine those of the image to a great extent. Images are the result of human creativity, a response to the need for interaction within a given society, thus forming a reciprocal relationship between the single unity (image maker) and the whole community. Visual representations are products of cultural and social activity; like musical instruments, both their aesthetic and functional aspects are closely linked with specific actions, social events, groups of people, hierarchies, beliefs and trends of a given society. Imagery is the tangible expression of a cultural (and therefore mental) construct, expressed according to that culture’s conventions of visual representation; the specific form, content, and symbolic meaning of a particular image are determined by the social and ideological relations and conditions that they express (Panofsky 1955, 61; Faris 1978; Dark 1978; Layton 1991, 27).

2.3.1 Defining images

The conception of an image is related to the wider issue of the definition of “art”. In answering the question “what is an art object” scholars oscillate between focusing on the ability of an object to evoke aesthetic pleasure and the potential it has to embody metaphoric relationships (Layton 1991, 4 ff; Tilley 1999). Certainly both assumptions are pertinent to the fundamental qualities that govern imagery and they point towards alternative and complementary analytical and hermeneutical approaches to the mechanisms of creation and visual expression. Archaeologists nevertheless differ from art historians in their initial outlook on imagery and art as their main goal is virtually to “recreate” a culture and society from its material relics; to use Faris’ words, “they speculate on the social relations of

production which might have generated the cultural expression from only the evidence of cultural expression” (Faris 1978, 320). For this reason they give priority and emphasis to a functionalist interpretation of symbolism and aesthetics.

Functionalism in this process combines the practical purpose of objects, the pragmatic role they play in the community, with the notion that material culture is produced with the desire to affect, to create response and to communicate.¹⁹ Archaeologists and anthropologists who use material culture as a tool to “read” the archaeological record and analyse social relationships place great importance on the function of artefacts *as utilitarian items that have additional symbolic qualities through style, decoration and imagery*.²⁰ In the functionalistic view, “images are entangled in the norms of utility and function that form the link between people and things” (Hodder 1982, 10). Viewed within the framework of the archaeological record, visual representations are not creations *per se* but are usually associated with utilitarian items; they decorate a pot, a shield, a fibula, a piece of furniture or a palace. *The image and the object that carries it (or setting where it is applied) form an entity and the utilitarian character of the object in a socio-cultural milieu provides the context for the application of the image and defines its meaning*.²¹

In many cases, the distinction between an image and an object becomes unclear when the former becomes an integral part of the latter. An example of this is a Cypro-Geometric kernos from Cyprus, now at the Metropolitan Museum, that incorporates the figure of a lyre player among the vessels (Fig. 2.2). The image of the musician distinguishes this particular kernos from all the other kernoi that may or may not bear decoration; the figure enhances the symbolic meaning of this particular kernos linking it with the concepts related to the genre of lyre player representations and may have influenced its practical efficacy. Similarly, the musician cannot be viewed on his own, disassociated from considerations regarding the practical use of the kernos in religious ritual and the set of concepts linked with its function. Therefore the primary matter for iconographical examination extends beyond the visual representation of the lyre-player imagery to the object or media as a whole. In the case of the Cypro-Geometric kernos the result of the potter’s work is not merely a utilitarian object but

¹⁹ The same is true for the non-material cultural products or forms of expression like song or story telling.

²⁰ In small scale societies it is more appropriate to talk about the craftsman rather than the artist, as they create objects to serve material ends in the everyday life, objects which might sometimes, but not always, give aesthetic pleasure (Layton 1991, 42).

²¹ See thorough discussions by Winter, Gubel and Boardman on Assyrian, Phoenician and Greek imagery in Uehlinger 2000.

the projection of multiple semantic relationships, whose effectiveness is determined by the craftsman's skill, experience and ingenuity in utilising the lyre-player motif, customized by the communal aesthetic taste (Dark 1978, 34; Layton 1991, 193 ff.; Winter 2000).



Fig. 2.2: Cypro-Geometric kernos including a lyre-player among the vases. 850-750 BC. MMNY Inv. No. 74.51.660 (Cat. 89).

Archaeological theory maintains that different classes of artefacts do not simply serve different purposes, but also address different groups of people and signal different kinds of relationships and this fact is *reflected in their iconography* (Winter 2000, 75 ff.; Gubel 2000). This realisation broadens the notion of artefact utility into the realm of social causation and interaction; according to Hodder, contextual analysis of artefacts does not only provide clues for their function but also opens ways for the creation of an “ideational content” associating artefacts with sets of concepts (Hodder 1986, 124 ff.). It is therefore deemed essential to evaluate *similarities and differences* considering the physical aspect and deposition of artefacts in order to understand their symbolic meaning (Faris 1978; Hodder 1986).²² Along these lines, in their attempt to define “culture” rather than “art”, archaeologists and anthropologists consider artefacts and their style as material-visual indicators of social identities, tensions within societies and communication networks between societies or cultures (Hodder 1982). Artefacts and their decoration, whether or not pictorial, are viewed as exponents of the dynamics (environmental, social, political, economic and cultural) that shape society. Any visual media is not perceived as “art” in the modern Western sense (i.e. artefacts with primarily aesthetic preoccupations created as subjective forms of expression without functional purpose) but as part of a system of symbolic communication within a given society “meaningfully constituted by individuals who use symbols to negotiate identity with different kinds of interest groups such as ethnic, class and gender” (Kelley 1993, 82; Hodder 1986). The association and correlation of the

²² Note Hodder's pre-occupation with the importance of absence as well as presence of data in the archaeological record (Hodder 1986, 127ff; 1982).

two functions, that of the object and that of the image, cannot be modelled either in practical or in theoretical grounds but require a faceted investigation of the deeper “levels” in which the object and the visual media operate in each case.

Archaeological, anthropological and art theory discourse in the last decades has acknowledged the importance of artefacts as social agents. According to Gell, artefacts come about as a result of social causation or personal intention which is transformed into a new “being”, a manufactured object. This new object is ultimately animated and equivalent to persons due to the fact that from the moment of its creation it plays an active role in the social sphere of the community (Gell 1998). Artefacts indicate by their existence the intentions, actions and efficacy of persons; they are the outcome from, source of and target for, social agency. Most importantly, like people, artefacts are active social agents that not only reflect, but also bring about changes and transformations of social relations, communicate information and shape experience. This practical mediatory role of material culture in the social process is the determinative quality that governs the appearance (style), function and symbolism of artefacts and images (Faris 1978, 316 ff.).

2.3.2 Parameters for imagery analysis

There is an analogy between the scholarly approach to the study of images and musical instrument classification. As already noted, musicologists and ethnomusicologists attempt to synthesize all types of information on musical instruments and reveal the net of multiple meanings that they embody. Hood insisted that an analysis of the music itself and its stylistic properties must precede any sociological approach and discussion of the usage, function and symbolism of music in society; the focus on the latter without a deep knowledge of the former could lead to misunderstandings and false interpretations (Hood 1971, 20). Of course, analysis of any music style requires the examination of a number of issues such as rhythm, pitch, composition, notation and orchestration as well as understanding of the stylistic norms of a given culture.

Likewise, the aim set by disciplines concerned with visual arts such as anthropology, archaeology and art history is to reconstruct the emic knowledge embodied in the images, in other words, to investigate the image’s symbolism, its communicative role in culture, and its efficacy as agent. Like music, visual representations are cultural phenomena where analysis and description of their form (compositional elements) is essentially prior to any

sociological, agent-based or symbolic interpretation.²³ In this respect, figurative imagery can be just as ambiguous as abstract decoration, since the identification of objects, settings and actions represented is not always clear. Furthermore, as Morgan points out, meaning is not intrinsic to the image/pictorial motif itself but “lies in the relationship between the idea/object and the image drawn” (Morgan 1985, 7). This realisation emphasises the need to discard any aesthetic pre-conceptions and to understand the rules of pictorial conventions of the specific culture.

Morphology, aesthetic preoccupations and primarily the definition of stylistic periods and investigation of artistic schools was the point of departure modelled by art historians. In this way sets of etic descriptions regarding pure visual forms, patterning, drawing, perspective (expressed relation of motifs to each other), composition, colour, in other words the various parameters of style, are investigated. Panofsky refers to this stage as “pre-iconographical description” of the “primary or natural subject-matter” where practical experience and knowledge of the prerequisites of a particular style by comparison allows the recognition of visual motifs (Panofsky 1955, 53, 58 ff).

According to Panofsky, style is not concerned with the meaning of elements or of the whole; it is rather a simple cataloguing of the visual properties of an image. However, anthropological and archaeological fieldwork (Greenhalgh & Megaw 1979; Hodder 1982) as well as sociological studies and experiments (Layton 1991, 150 ff) have demonstrated that the adoption of a particular style primarily remains a culture-based issue. Stylistic behaviour provides evidence regarding the ways in which cultures organise the world (Layton 1991, 184). Subsequently, although style in itself is relevant to form rather than content, it is not devoid of meaning. In addition, it has been proposed that stylistic features are means for exchanging information on the ground that “simple, invariant and recurrent messages will normally be transmitted stylistically” (Wobst 1977, 323). Stylistic variation over time and across geographic boundaries is a factor associated with economic, social and ideological parameters (Kelley 1993, 83).²⁴

²³ It is important to note that for the archaeologist and the anthropologist abstract or non-pictorial designs are equally significant as figurative representations, because these disciplines are primarily concerned with semantic values, of which narrative is only one manifestation among many. It is nevertheless generally accepted that abstract and pictorial motifs have different signifying potentials; pictorial motifs are inherently narrative, whereas abstract motifs may have the ability to portray several things at once as they bear less resemblance to the things they might portray (Layton 1991, 186).

²⁴ Although attempts have been made to identify universally valid aesthetic values that demonstrate an inherent human tendency to appreciate “beauty”, the realisation that style reflects specific social

As stylistic²⁵ analysis is concerned with the technical and morphological features of design, it unavoidably leads to the segmentation of pictorial representation in order to examine the treatment of its elementary units, usually described as “motifs”. Semiotics and structuralist theories view these motifs as the core of a visual grammar or language and it is from the organisation of these visual units that meaning emerges (Hodder 1982; Layton 1991, 99 ff, 127 ff.; Morgan 1985, 9 ff.).²⁶ Although this approach has been criticised as inappropriate for dealing with imagery,²⁷ nevertheless it does demonstrate the importance of *design structure analysis* and it has highlighted the binary opposition between *presence* or *absence* of certain motifs (Hodder 1986, 34 ff.).

Pictorial motifs and their combinations have the ability to stand as representations of variables at multiple levels. On the first level, they recall directly the object or person that is depicted (for example, a picture of an apple instantly refers to the natural object); as such, they immediately call upon the mental concepts associated with the object represented, concepts that are inherently culture-specific. On a second level, they can be used as signs within a well-defined context of visual communication; as such pictorial motifs are comparable to each other and have a common point of reference. Hieroglyphics, seal impressions or even Hood’s organograms are examples of the way information can be condensed in the form of visual signs. In this sense, images (that is, motifs and their combination) have an active relationship with other images of the same genre. Recognition of genre is very important in setting the frame within which the visual message can be decoded. Analysis of the syntactical arrangement of the compositional elements of an image is also an important factor for assessing modifications or alterations of the visual sign. On a third level, images have a symbolic value as visual expressions of metaphorical relationships. Tilley defines metaphor as “understanding and experiencing one thing in terms of another” and he argues that “[metaphor] governs rather facilitates reasoning and constitutes understanding” (1999, 19). The substitution of a falcon for an Egyptian king or

conditions has led scholars to move from the search for standards of beauty and to focus on the investigation of indigenous aesthetic principles, resulting to the establishment of the “anthropology of aesthetics” as a sub-discipline of the anthropology of art (Coote & Shelton 1992, 7; contra Gell 1998, 2 ff).

²⁵ This is what Morgan refers to as “idiom”, reserving the word “style” to describe work of specific artists or hands (Morgan 1985, 9). Here, the term “style” is applied loosely as usually there is little or no reference to individual artists in this study.

²⁶ This notion of “motifs” is different to that of Panofsky’s that in effect denotes an image rather than its compositional elements.

²⁷ According to Gell, even the simplest visual motif lacks the arbitrariness characteristic of the equivalent acoustic units (phonemes) (Gell 1998).

the phenomenon of totemism are examples of mental concepts like kingship or tribal identity that are projected in physical (iconographic) terms by means of metaphoric association. Holten points out that switching between sign and symbol happens “according to the context in which the elements of the non-verbal communication takes place” (1993, 183).

Symbols facilitate non verbal communication at a high level. They play an important role not only in the transmission but also in the creation of ideas, for “symbols represent the combination of different contexts from which a new and metaphorical meaning results” (Holten 1997, 184). The problem that arises is that symbols are polysemous and therefore can mean different things to different people.²⁸ Although members of a given culture are expected to share concepts and ideas, even within the same cultural boundaries peoples respond to symbolic meaning can vary (Tilley 1999, 114-115; Winter 2000). As Tilley points out, metaphors and symbolic relationships need to be discursively constructed and to *actively* involve things in contexts of action; they require repetition and over-coding. Metaphors are manifested in artefact, image or verbal form and all three types have complementary roles in the constitution of culture; material metaphors (that is, artefact and image metaphors), however, act subtly and more powerfully because they are perceived at once and not by means of discourse (Tilley 1999, 262). Gell has also demonstrated how images and objects become animate and can embody ritual or other powers; these powers do not derive so much from the ideas they express, but from their ability to express them, their capacity to communicate (Layton 1991, 99; Gell 1998). The manner in which image metaphors link to the various cultural domains and construct meaning relates to their internal qualities, namely structure, style, form and content. Because material metaphors are read immediately, all aspects of their biography such as technology, reproduction, usage, exchange and deposition, are interdependent and contribute continuously to the construction of symbolic meaning (Tilley 1999, 263).

For the description of compositional elements of an image, the classification and identification of motifs and the recognition of genres it is essential to take into account the iconographic conventions of a given culture. Comparison and cross-examination of the motifs with their manifestations on other media is essential in order to evaluate the artist's

²⁸ Layton illustrates this with an example of the different ways that a rather unambiguous image of a pregnant female with clear semantic significance can be interpreted by different viewers. For one culture it could symbolise fertility and be used as a cult image, but for a member of the Lega tribe it is a visual reference to the story of a pregnant woman who committed adultery and “because she had ritually polluted herself, died” (Layton 1991, 10), therefore acting as a reminder of the norms of social behaviour.

aims and the visual means he was able to utilize. Historical cross-examination within the same cultural boundaries provides insights to the established artistic/ideational context that enabled the creation of the image. Tradition is important in the preservation and transmission of a motif, but the potential polyvalence of images means that they must also be viewed synchronically and (if needed) cross-culturally, as the possibility that they may carry different meanings for different sub-spheres of society and for different recipients over time must also be accounted for.

The fact that the significance of the image may vary according to the context in which the image is employed sets *interpretation* as the governing factor in the discipline of iconographical and iconological studies.²⁹ As Panofsky points out, even when we attempt to identify the patterns/objects/figures represented in a descriptive analytical process, we are engaged in the act of interpretation as we connect artistic motifs with themes and concepts.³⁰ Of course interpretation is not required only by the scholar who is studying the images but also by the addressee of an art form (music, literature or visual arts). Consequently, interpretation of images requires deeper understanding of the ways visual representations are conceived and created and of the “relationship” that there is between objects and images (Morgan 1985, 7). In his iconological approach, Panofsky links interpretation with the analysis of the extrinsic factors and concepts (political, philosophical, religious, social, poetic) that reflect on the art object; in essence, he places the artist in a historical context. This approach is deemed over-generalised by modern scholars who focus on the multiplicity of layers in meaning rather than on a holistic view of images as paradigms of a given culture, or, to use Panofsky’s words, as “cultural symptoms or symbols associated with essential tendencies of the human mind expressed by specific themes and concepts” (Panofsky 1955, 65). As it has been shown, ascribing meaning on an image is a process with many levels, starting from the role of the social and cultural consensus,³¹ moving to the semantic

²⁹ These terms were introduced by Panofsky 1955. In his definition, “iconographical approach” is the descriptive analysis of the image and the recognition of the theme depicted; this needs to be complemented by an “iconological approach” that ascribes meaning to the picture and explains it as a symptom representative of a given culture. Panofsky’s iconological method based on “synthetic intuition” has been criticised by modern scholars (see Winter 2000, 75 ff.) who give priority to the agency of artefacts (discussed in the previous chapter) as a means to decode the meaning of an image. See Hood 1971 for a dichotomy between organology and organography similar to that of Panofsky.

³⁰ In a way, any creation is *already* an interpretation of an idea (Layton 1991, 28 ff.).

³¹ The terms are borrowed by Hood 1971, 300 ff. who explains how the musical consensus (which he describes as the interaction among all music making entities) has a two-way relationship with the cultural and the social consensus. He defines the first as “any group involved in the process of cultural expression outside music making per se” and the second as “special interest groups and institutions, such as economic segments of society, the organised church....the hierarchy of social status and so forth”.

associations of the media carrying the image and finally addressing the meaning expressed by the act of referencing an object or action and the intentions behind the act of representation (Winter 2000, 78-9).

2.3.3 Reading the record and the image

Although anthropologists and archaeologists have different aims from those of art historians, they share the same preoccupations with reading socio-cultural parameters through images and artefacts. Hodder proposed a tripartite system for the analysis of material culture within the context of social interaction. He recognised three kinds of meaning in material culture which provide a useful framework from which to begin looking at artefacts and decoration as evidence for symbolic communication. The first kind of meaning relates to how the object is used and how it conveys information (functional or pragmatic meaning), the second to the object's place in a code of communication (structural meaning) and the third to the historical content of the changing ideas and associations of the object (symbolic meaning). All three kinds of meaning are not always accessible through contextual interpretation of the archaeological record and in many cases correct interpretation of the functional or structural meaning is an achievement in itself. It is possible, however, from the cultural contexts in which objects are made, used and discarded, to extract the kinds of symbolic meaning attributed to objects to a certain degree (Kelley 1993, 82; Hodder 1986, 151 ff.).

A further issue for consideration is the explanation of stylistic behaviour and image content by means of an assessment of material culture. On one hand, these factors are determined by tradition (what we could describe as artistic and cultural consensus) passed on from generation to generation along with the codified meanings of artefacts; in this sense, style and imagery are seen as a purely archaeological unit that represents peoples and socio-cultural entities (Hodder 1982, 3). This is in agreement with the notion that through their polysemous metaphoric meanings, artefacts and images inherently operate as mnemonic devices encapsulating the past, whereas at the same time perpetuating and updating the semantic statement (Tilley 1999). Reproductions of images and motifs, however, are not to be taken as repetitions of the same instance, as they are created under new (and often different) circumstances. In this way, *replication, variation and diversity* in the representation of a genre are important means for the analysis of *cultural change and evolution*, which are reflected in the existing symbolic units and novel idiomatic or thematic acquisitions.

The proponents of information theory consider objects to be encoded with information by their makers and decoded by viewers who know the meanings of the visual signs (Wobst 1977). In this light, style and imagery are perceived as having social and ideological functions as well as playing an active part in forming and giving meaning to human behaviour (Hodder 1982, 12). As has already been noted, different classes of artefacts represent different kinds of relationships and the manner in which styles and images assert social/cultural affiliation or differentiation can only be understood by examining structures of symbolic meaning (Hodder 1982, 205). Reproductions of images and motifs may illuminate patterns of social relations (internal and/or external) in a given community. In this way, *replication*, *variation* and *diversity* in representation of a genre are important means of assessing *independence*, *influence* and *membership/dependency* among diverse social and cultural groups.

2.4 Classifying images: the challenge of musical iconography

Unlike our knowledge of the visual systems of ancient cultures, which is based on direct visual evidence, our knowledge of the musical systems of ancient cultures clearly cannot be acquired in such a straightforward manner. The inquiry into ancient musical knowledge and practice is an interdisciplinary process assisted by four parameters: archaeomusicological analysis, musical-iconographic analysis, ethnological analogy and historical examination (Olsen 1988; 1990). The examination of musical representations is complementary to the ultimate goal of gaining musical knowledge.

The value of images as musicological evidence has been recognised for some time and the study of musical representations has become a sub-discipline, corroborating both visual arts scholarship and musicological research. These two fields of study have a different starting point (visual versus auditory), but, as has already been shown, they share similar goals in examining relics of material culture on morphological, technomorphic and stylistic grounds with the aim of understanding the cultural factors and social dynamics that produced them. The discipline is concerned with the analysis of subject matter (pictorial motifs, compositional and syntactic elements of the image) rather than morphology/style and therefore the term “musical iconography” is justifiably applied (Brown & Lascelle, 1972),

although some scholars prefer the term “iconology” to underline that the ultimate goal of the discipline is intellectual penetration on a hermeneutical level (Winternitz 1985).³²

From the above discussion on scholarship regarding both the study of musical instruments and the enquiry into the role that images play in culture/society it is evident that the two fields require analysis on multiple levels using microtaxonomical tools. In classifying images with musical content one is obliged to create *typologies* rather than categories in order to decipher the paradigmatic relationships that the images embody, relationships that are complex and often obscure as has already been shown.

2.4.1 The value of musical representations for LBA and EIA musical knowledge

Musical representations along with literary sources and archaeological discoveries of surviving musical instruments are the only means we have to approach and analyse the musical cultures of prehistoric and proto-historic societies, particularly because no actual musical data has been preserved. In the investigation of early music cultures, such as that of the Late Bronze Age and the Early Iron Age in Greece and Cyprus, images furnish basic information that cannot be obtained otherwise, since the contemporary literary evidence (namely Linear B and the Homeric Epics) is scarce and does not supply necessary details of musical instruments and performances, and the archaeological remains are usually fragmentary and often questionable.³³

The study of musical representations from the LBA and the EIA is pertinent a) to issues and questions of organological and musicological nature, b) to preoccupations regarding the

³² The growing interest of musicologists in iconographical studies has led to the foundation of the *Révue Internationale d'Iconographie Musicale (RIdIM)*, an international organisation encouraging regional working committees to catalogue the visual resources. Sampling of the iconographic sources has also been undertaken in recent decades by series such as *Musikgeschichte in Bildern* (Leipzig, 1961-present) and specialised articles on the iconography of music appear in the periodical *Imago Musicae*, founded in 1984 by *RIdIM*. Study groups on musical iconography and music archaeology working under the auspices of the International Council of Traditional Music (*ICTM*) are devoted to the examination of musical iconographic material from various civilisations. Currently an archive of Greek musical iconography is being compiled in electronic form by the Department of Music at the Aristoteleian University of Thessaloniki.

³³ Literary sources offer valuable information on instrument nomenclature and contain some references to their performance context (occasions where the instruments were played), but the description of instruments in literature is usually generalised, lacking crucial information on the type, appearance or construction. Archaeology on the other hand offers an immediate experience and knowledge of the musical instrument itself within a context; this is usually a grave or sanctuary deposit and not always informative with regard to the performance context of the instruments. Instruments found in excavations are usually fragmentary, unable to produce sound most of the time, and often it is difficult to identify them as musical instruments due to their bad state of preservation or ambiguity (see for example the discussion on cymbals, chapter 4.1.2).

iconographic analysis (subject matter and form) and interpretation of an image and c) to problems regarding the contextual examination of the media of representation.

In laying the foundations of musical iconography as a discipline there has been a dichotomy in scholarly approach. Some treated the visual arts as an auxiliary tool and a source of information about musical performances in a given era. This approach recognises the dependence of the image on the physical world but at the same time appeals to the critical mind; reliance on the superficial resemblance of motifs with actual objects is not adequate (Morgan 1985 and discussion above, chapter 2.3.2) and occasional misinterpretation of the visual information of a musical nature has demonstrated the importance of thorough iconographic analysis (Brown & Lascelle 1972; Winternitz 1979). Other scholars, however, have insisted that factual information about real instruments and performances cannot be obtained from images unless it is corroborated with additional hard musicological data (songs, scores, performances), because any musicological information conveyed in the work of art is only incidental and the image should be viewed purely as a work of art. In this approach an image is primarily an artistic vision the study of which falls under the disciplines of social, cultural and intellectual history of music (McKinnon 1982). This position rightly calls attention to the non-critical acceptance of all visual data as factual, but as a methodological approach it has some weaknesses for it disassociates the image from the real world that provided both the material references and the aesthetic means for its production, issues that we have already addressed.³⁴ Even if we consider images as mere mental-artistic concepts, they are still highly dependent on the visual perception of the image-maker.³⁵ Furthermore, the meaning of the images can be considered without knowledge of the factual musical information that is inherent, even to a minor degree, in any pictorial representation.

In the case of ancient musical iconography this dichotomy is a pseudo-problem, because artefacts and their decoration are the most abundant sources of factual information for pre-historic or early historical periods. In the absence of other types of evidence (adequate literary sources and hard musicological data), *large sampling* of relevant iconographic

³⁴ This view recalls the arguments of those who *a priori* deny any reference to real life in the Homeric Epics just because they are works of art, as if they could be created as such without relying on perceptions of the real world and experience of everyday life; the literature on this subject is too extensive to be presented here (for some pertinent discussion and alternative views on the oral creation of the epics in relation to contemporary life see Snodgrass 1974, Thalmann 1984, Sherratt 1990, Taplin 1992, Nagy 1996, Dalby 1995, 1998; Janko 1998 with further references).

³⁵ See the discussion above on “internal” musical images, chapter 2.2.4

material alone could allow some sort of definition of the musical trends of a given society. Naturally, it has to be taken for granted that images *do* have artistic merit and are bound to distort reality; the image-maker deviates from reality because of the artistic conventions of the period in which the image is being made and in his capacity to portray all the complex details of a musical scene (the structure of the musical instrument, how is it played, the setting of the performance and other elements). It is imperative though to determine *the extent* of artistic arbitrariness and to set apart the information that can be taken face value. After all, musical scenes must have been inspired by actual performances to a great extent, and accuracy in representing reality is not only a matter of the craftsman's ability and stylistic environment, but also subject to the social demand (patron or community) and the purpose these images are called to serve (descriptive or symbolic). The question that eventually arises is "who is making musical iconography and why". Cautiousness in extracting information about the facts of music life in the LBA and EIA calls for *large sampling* and meticulous cross-examination of the iconographic motifs as well as their artefact context.

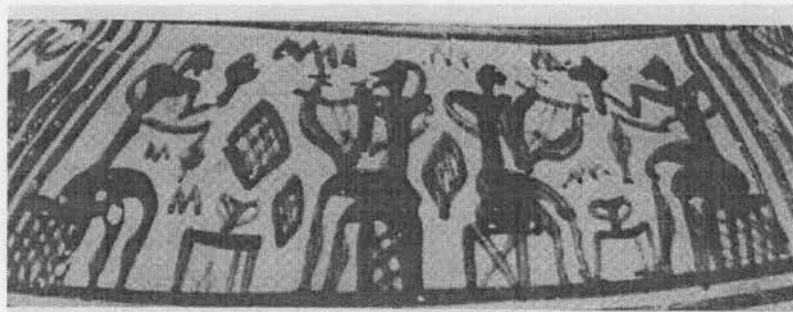
2.4.2 Scope and limitations of LBA and EIA musical iconography

During the LBA and EIA periods in Greece and Cyprus musical subjects are represented on almost every type of artefact that allowed figural decoration, namely on pottery, frescoes, bronze-work (vases, bowls, "shields", armour), seal stones, terracotta and bronze figurines, stone sculptures and reliefs. The representations can be divided into three types: a) those that depict the instrument alone, which is sometimes accompanied with additional pictorial motifs, b) those that are limited to the musician and his instrument (usually three dimensional) and c) musical scenes which attempt to develop narrative, including iconographic motifs of symbolic (often generalised) character or other pictorial elements that may indicate a particular performance setting or performance context. Through the study of these pictorial representations we are seeking to provide information on the following subjects:

1. Instruments

Organological identification is the most evident and immediate goal. Written records alone often provide us with instrument names without giving much information regarding to the type of instrument they are referring to. Therefore visual representation of the instruments can be valuable because they show the instruments in common use, even those instruments that are not mentioned in literature.

Identification of musical instruments is not always straightforward and secure and on many occasions it cannot be achieved at the pre-iconographic stage of examination, necessitating an iconographic analysis. An example of this is the case of the attic LG so-called rattle scenes where a figure seated opposite a lyre player is holding two objects of ambiguous shape (Fig. 2.3a). The identification of the objects as rattles requires the following steps: morphological description/recognition of motif, comparison with similar iconographic motifs, examination of the hypotheses that they might represent rattles (among other hypothesis), comparison with actual rattles from the Aegean to check their morphological affinities with the image, interpretation of the scene and testing whether rattle playing is in accordance with it. In other words, identification of musical instruments is often the product of interpretation rather than direct recognition of familiar shapes and it also requires the researcher to have organological knowledge.³⁶



a.



b.

Fig. 2.3: a) Scene on a Late Geometric Oenochoe from Athens, representing lyre and possibly rattle playing. *NMA* Inv. No. 18542 (Cat.14). b) Seal stone from Lindos representing a stringed instrument (Cat.201).

Instruments may not be correctly drawn in pictures, and many important organological data like the material the instruments are made of, ergological information and construction details cannot be visually represented. In addition, when the content of an image is not meant to be descriptive but rather emblematic or symbolic, crossing the borders of time and place, the artist may content himself with a generalised rendering of the basic features of an instrument (Seebass 1984), as one can observe with the seal stone from Lindos which represents very schematically a stringed instrument (Fig. 2.3b). Nevertheless, with a

³⁶ Similar problems are encountered in the case of artefacts that are retrieved in fragmentary form from the archaeological record and their identification as instruments (or part of instruments) requires careful examination of their physical properties. An example of such considerations concerning tubes and their identification as parts of wind instruments or as pipes with different function is given by B  lis 1988.

comparative study of the morphological features of an instrument type over a large sampling it is possible to evaluate which of those iconographic details and features are secure or plausible reflections of reality that might refer to typological variations or terms of construction. At the same time, the absence of musical instruments from the iconographic repertoire, the use of which is verified either from archaeological or literary sources, is also a matter of consideration.

Another parameter that is illuminated through iconography is *performance practice* and the verification of various *playing techniques*, as it is demonstrated for instance in the case of Aegean and Near Eastern lyres that are associated with two different playing methods, held upright and tilted respectively (see descriptions in Appendix I). Again here, large sampling and iconographical analysis is vital for a correct interpretation. As it has already been shown, musicologists have deemed information on playing technique important and they have included it in their classification systems as a feature of organological and cultural significance (see discussion in 2.2.3). They have also appreciated the association of performance practice and musical experience with the visual impression that it evoked naturally in the human mind. It is therefore asserted here that the creation of iconographic motifs with the representation of a variety of playing techniques emerges from the direct exposure of the image-maker to such performance experiences and can be used as a cultural signifier in the cross-cultural examination of musical representations.

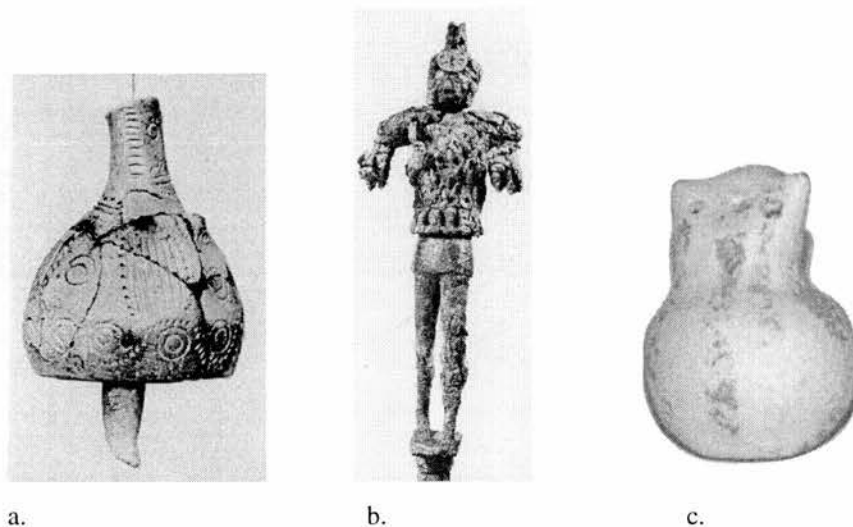


Fig. 2.4: a) Terracotta bell-shaped figurine with mobile legs from a tomb in Nea Ionia, Attica (Cat.59). b) Bronze rattle-bell from Salamis, Cyprus, in the shape of a warrior wearing a corslet and helmet (RA.20). c) Awl-shaped terracotta rattle from Enkomi, Cyprus (RA.16)

Another point of interest is the examination of the musical instrument itself as an image; this is particularly interesting when instruments are given zoomorphic or anthropomorphic appearance, like for example the anthropomorphic clay bell-dolls from the Aegean (Fig. 2.4a), the bronze rattle-bell soldiers or the zoomorphic awl rattles from Cyprus (Figs. 2.4b and 2.4c respectively). The decoration of musical instruments (actual or represented) is also addressed by musical iconographic analysis.

Performers and the performance of music

Images may provide some information on the identity of performers of music. Human or animal nature, gender, social status and ethnic group can be illuminated by attention to features and dress but there are many occasions when these indicators are not clear due to the synoptic treatment of human figure in EIA representations. Nevertheless, binary oppositions like human versus animal nature, male versus female and even iconographical elements such as seated versus standing and nude versus dressed can be used as tools for the ascribing some sort of identity, social differentiation and cultural affiliation.

The role and status of musicians in society is not easily revealed in the EIA iconographic evidence. It is therefore more complicated in its approach and it requires contextual analysis of the artefact and iconological interpretation of the image. In the majority of EIA representations the status of the musicians is not clearly defined and the few categories that can be postulated with some certainty are those of the divine or priest-musician and the warrior-musician (see for instance Cat. 34, 35, 46, 147, 189, 194, 197, 199).³⁷

Finally, the performance varieties that are represented provide information about the existing music genera, for example solos, ensembles, instrumental and vocal groups, musical accompaniment for dance and the relationship between the performers.

Location and occasion of performance (performance context)

From many of the representations we can basically discern between indoor and outdoor performances but the actual site is never really indicated. Narrative scenes can indicate whether the performance is taking place during a banquet, a cultic event or religious ceremony (for example at a sacrifice), a funeral, a music or athletic contest. In many cases it is difficult to determine the identity of the audience and to decide whether the musical performances represented have cultic or religious rather than domestic or civic character.

³⁷ References in the Homeric epic, however, also reveal the poet-musician, the court-musician, the professional, the amateur and the minstrel.

The Cypro-Geometric naiskos from Cyprus with lyre player and watchers is such an example of ambiguous (for us) intentions (Fig. 2.5). In addition, non narrative representations give no clues regarding the occasion of performance. In these cases examination of the style of representation and the archaeological context, as well as literary references and iconological interpretation, must be employed.

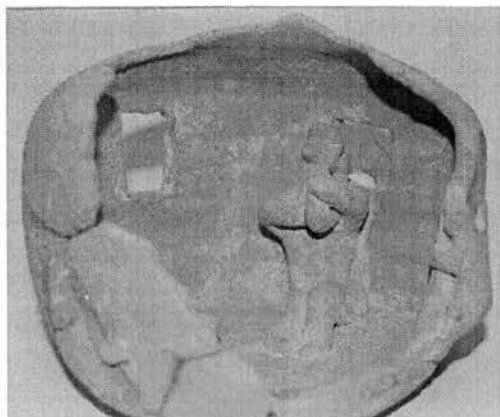


Fig. 2.5: Cypro-Geometric naiskos showing a seated lyre player inside and watchers looking through the windows, the door and the opening of the roof. *CM* Inv. No. B220.1935 (Cat.85).

Symbolism and allegory

Beyond the information regarding the phenomenological world lies the connection of images with the underlying world of ideas. Recognition of a mystical, religious, erotic, heroic, magical or other symbolic meaning is not easy without solid knowledge of the cultural, religious and social preoccupations of the community that could be directly connected to the content of the image. Certainly iconographic motifs can provide hints of allegorical considerations and some of them pervade many different music cultures (like for example the erotic symbolism of musical instrument playing and especially that of aerophones and idiophones or the association of birds with musical performance) but their use as evidence for the symbolic value of an image without supporting material is risky (see the example of the figurine representing a pregnant female already mentioned, n. 28). The use of archaeological and literary data, however scarce, that can exemplify local traditions is indispensable for corroborating the iconographic analysis.

As Winternitz points out, in order to extract the factual data from an image one has to see beyond the devices of stylization or “to abstract from the work of art just those elements which make it art” (Winternitz 1979, 38). Winternitz has identified and discussed in detail the factors which cause an image to deviate from “reality”; a comprehensive summary of these factors is presented below:

1. *Limitation of the medium of depiction* (esp. two dimensional versus three-dimensional).
2. *Pictorial style of the period or of the individual artist.*
3. *Carelessness or lack of mechanical or musical understanding on behalf of the artist.*
4. *Requirements of pictorial composition*, for example symmetry, pictorial convention, choice of subject according to public taste, fashion or specific patron.
5. *"Prettyfication".*
6. *Symbolic or allegorical significance of the painting.*
7. *Archaic aims.*
8. *The fantastic.*

These factors apply to almost all eras. From the collection and examination of a large sample it has become evident that all media are capable of conveying information worth examining. Even if their accuracy in drawing is poor, they still have a statistical value and can be used for the interpretation of a particular scene or motif, for the understanding of the artistic background and the analysis of the cultural background. Furthermore, it is true that the artistic medium may place limits upon accuracy and the depiction of details; the study of a large sample, however, has shown that interest to portray a specific instrumental type can transcend the difficulties that the medium might impose. An example for this is the terracotta figurine from Palaikastro playing the distinctive type of Minoan lyre,³⁸ where special attention has been paid to the characteristic shaping of the arm in the three-dimensional media despite the difficulties that this might have entailed (Fig. 2.6).



Fig. 2.6: Terracotta lyre player from Palaikastro, Crete. Ca. 1325 BC. *HM* Inv. No. 3903 (photo author).

Even though we might have to dismiss iconographic data as a representation of factual material due to its synoptic rendering, we nevertheless ought to give it similar importance as

³⁸ The Minoan lyre as we know it from Minoan-Mycenaean frescoes had arms decorated with bird heads; this feature was rendered with a curvilinear arrangement of the arms in two-dimensional representations.

a visual sign that requires interpretation just like any other image. Three-dimensional or larger scale representations do not always provide more information than two-dimensional or smaller scale depictions do. For example, depictions of wind instruments from Cyprus are repetitive in character when made in stone sculpture of medium/large size but very adventurous in the coroplastic art of the same period (see for instance Cat. 76, 77, 95, 97, and 98 discussed in chapter 3) which allows experimentation and more plasticity in modelling (Connelly 1991). One has also to consider practical issues and the potential of the various media and, with that in mind, conduct stylistic comparisons.

Reproduction of a certain motif in one or more media is another issue of special interest. The identification of the prototypes that served as model for the reproductions and the assessment of the transformations that the motifs go through during this process is important for the signification of the images, as we have already noted.

2.4.3 Cataloguing EIA musical representations: practical considerations

The examination of musical instrument classification systems and the analysis of the image properties have shown the necessity of *multifaceted classificatory tools* for the eliciting of information not only of the visual/morphological and audio/perceptual aspects (etic descriptions) but also of the culture's, sub-culture's or individual's deep-seated ideas about music which are connected to religious, philosophical and social beliefs (emic descriptions). It has also been demonstrated that any conclusions regarding the factual, symbolic or intellectual information provided by the images must be based on a *faceted examination of a broad sampling* of the iconographic sources. The classification of musical representations on all types of media is governed by problems concerning the *choice and organisation of keys* and the *identification of associations* of the various facets.

Brown & Lascelle have proposed a system of cataloguing that would allow the various facets of images to be clearly presented; their ultimate goal was to provide standard terminology and a set framework for other scholars to use for their cataloguing purposes.³⁹ Special attention was given to the core musical information, with the instruments being described *separately* from the complete scenes. For the faceted examination of instruments and scenes

³⁹ They devised six cross-reference files that separate the facets as follows: 1) school and artist, 2) medium and type of object, 3) present location, 4) instrument representation (keys for details on instrument type), 5) iconographic subject entries (keys for subject matter, description of performers, type of musical activity, text accompanying), 6) bibliography with reproduction (Brown & Lascelle 1972, 5 ff.).

additional keys were employed and each key was accompanied by lists of variables compiled from the examination of the whole corpus. Another list of variables was compiled for the media where the images were applied, which alluded to their functional purposes. In this way, musical information was layered and every aspect of the various facets was easily comparable to the rest of the corpus, without actually distributing the artefacts into categories of any sort.

The present catalogue of EIA musical representations is compiled with the same overall principle of layered information in mind. Brown & Lascelle's basic facets have been used with modifications dictated by the fact that we are dealing with archaeological finds. In the process of cataloguing, the facets which aimed to embrace both aspects of musical instrument classification and artefact-imagery analysis that we discussed in the previous paragraphs, were devised as follows: (1) medium (material) and type of object, (2) provenance and detailed find context (keys for settlement, burial, sanctuary), (3) date (style and artist when known), (4) general information (present location, bibliography and illustration, dimensions and state of preservation), (5) iconographic subject (keys for main motif, compositional syntax [linear, antithetic, juxtaposition, axial], complementary motifs, description of performers, performance context [if known], text accompanying), (6) instrument representation (keys for instrument morphology and performance practice).

All files are summarised in a comprehensive catalogue of the EIA iconographic material from Greece and Cyprus presented in APPENDIX I. Catalogue entries are organised by material and location as this arrangement allows an instant evaluation of the local types of iconographic output within each artefact category. In the course of the analysis of the iconographic material, the aim has been to treat every representation both as a unique example, paying special attention to its various facets, and in the context of similar or related representations within the broad framework of the instrumental classes under discussion (aerophones, membranophones and idiophones). Thus an attempt has been made to examine the various facets of the iconographic subject and instrumental representation together, with the aim to reveal paradigmatic relationships of the typological varieties, whilst categorising the images under etic descriptions of instrument typologies and iconographic motifs. Conclusions about certain keys, such as the performance context, the symbolic values of musical instruments and imagery and general socio-cultural considerations (see Table 2.1, facets IV-V), are usually deduced or postulated only *after* the iconographic and contextual

analysis has taken place and therefore are not mentioned in the catalogue entries of Appendix I (although sound results could subsequently be added to the files).

PART TWO: ICONOGRAPHIC ANALYSIS, INSTRUMENT TYPOLOGY

In this part I will discuss aspects of morphology and sound qualities (as far as possible), performance practice (playing technique and performance context) and nomenclature of the instruments represented in Greek and Cypriote arts of the Iron Age (keys I, II, III and VI of Table 2.1), based also on the evidence provided by the surviving musical instruments that are presented in Appendix II. The iconographic elements of the scenes under discussion will also be addressed and comparisons between the iconographic types of the Bronze and the Iron Age will be made. Hornbostel and Sachs's four broad categories of aerophones, chordophones, idiophones and membranophones provide the general framework for the examination of musical instrument representations and subsequent discussion on issues regarding organology and iconography. Within each category are proposed typological variations following the process of the descriptive systems as outlined in chapter 2.

3. AEROPHONES.

3.0 Classification and terminology

Aerophones (or winds) are the instruments in which the sound is produced by the vibration of air (wind or breath in an air-column). They are classified according to *how* the air is set and maintained into vibration. This can happen: a) by whirling or spinning a usually flat-shaped object, therefore causing the air to vibrate on its edges and b) by directing the air into an enclosed column or tube. The former are called *free aerophones* because they lack the tube containing the vibrating air, whereas those comprising a tube are the *wind instruments proper*. They can be further classified according to the different ways that the air vibration is sustained into the enclosed column or tube.¹ Wind instruments that consist of an enclosed column of air are sub-divided into:

a) Lip-vibrated instruments (like the trumpets), where the air-stream passes through the player's vibrating lips (that function like a reed). This is usually (but not always) done with the aid of a cup-shaped mouthpiece that supports and accommodates the lips and allows the right amount of lip to vibrate (Fig. 3.1).

¹ The foundations of this system based primarily on the principle physical features of the instruments were laid by Mahillon (1880-1922) and expanded by Hornbostel and Sachs (*Hornbostel-Sachs* 1914).

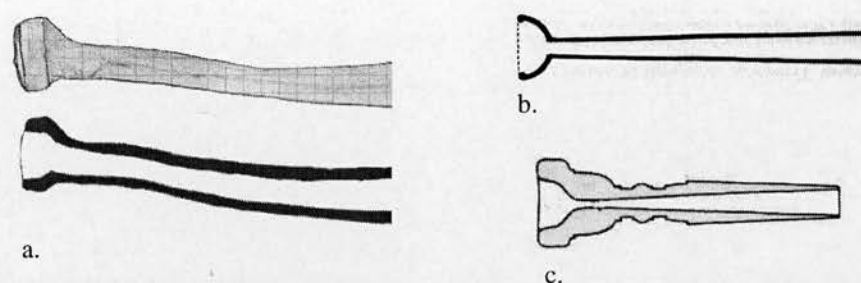


Fig. 3.1: Trumpet cup-shaped mouth ends. a) Section of a terracotta trumpet from Cyprus (SA.3) (drawing by author). b) Section of a cast bronze Roman *cornu* (after Bate 1966, 97 fig. 25). c) Section of a modern trumpet (after Tarr 1988, 17).

b) Edge instruments or flutes, where the air-stream is directed against a sharp edge at one end of the air-column setting the air particles in oscillation and dispatching pressure waves down the tube (Baines 1957, 31). There are various ways of doing so. The player can direct the stream of air with his lips or sometimes with the aid of a notch (v-shaped, square-shaped or rounded) against the rim of the blow-hole (ductless flute). Otherwise he employs a duct (also called flue or windway), a kind of a built-in slot, to direct the air stream against the lip of a lateral aperture (duct flute or whistle). Flutes can be blown directly through the mouth-end opening (end-blown), or through a lateral hole (side-blown) (Fig. 3.2).

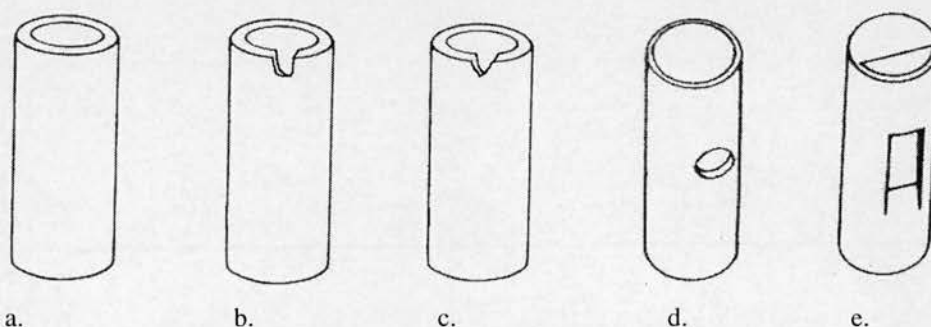


Fig. 3.2: Outline of flute mouth-ends. Ductless: a) end-blown without notch, b) with rounded notch, c) with triangular notch, d) side-blown. e) Flute with duct.

c) Reed blown instruments or reed pipes, where the breath stream sets in vibration a reed placed at the head of the instrument which is the sounding-agent (generator) whereas the air column in the tube acts as a mere resonator. The reed consists either of a single tongue (single-beating reed) or two tongues (double-beating reed) fit together (Fig. 3.3). In the first case the tongue vibrates against an air-slot, whilst in the latter the two tongues vibrate against each other; in both cases they provide intermittent access of the air-stream into the tube. The single beating reed can be either attached separately (heteroglottal) or cut out of

the side of the tube (idioglottal); according to the way that it is cut or attached it is described as up-cut or down-cut. Another type is the free reed, which vibrates through an air-slot rather than against it.

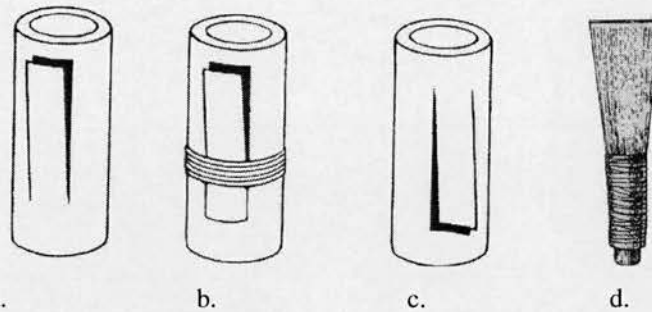


Fig. 3.3: Reed pipes. a) Down-cut idioglottal single reed. b) Down-cut heteroglottal single reed. c) Up-cut idioglottal single reed. d) Double reed.

In Greece the word αὐλός (*aulos*) is used to denote wind instruments. *Aulos* is a generic term that designates a tube, pipe or channel and the word is found with this meaning for the first time in the *Odyssey* (19.227).² It is very appropriate thus that the same word was used in order to describe musical instruments which consisted mainly of one or more tubes acting as an air channel.

Chantraine (1968, 140-1) accepts that the principal meaning for the words of the *aulos* family was “tube, conduit”, but in time the association with the wind instruments became more prominent and obscured the other related uses of the word. Most scholars accept this etymology.³ Boisacq, on the other hand, connects the term *aulos* with the word *aule* and a different family root meaning “dwelling”, on the basis of the similarity of the compound words from both *aulos* and *aule* (ie. *enaulos*, meaning both “played on the aulos”, or, “at home”) (Boisacq 1950). Landels finds it difficult to reconcile the two meanings and to accommodate the later word *diaulos*, meaning “double foot-race”, which he thinks is even more incongruous (Landels 1960, 9). His difficulty lies on the fact that a direct association of the two meanings would somehow relate the initiation of aulos playing with a private space. However, such correlation is not fruitful, for aerophones must have been used initially as

² In this particular passage it is used to describe the double socket of a fibula. Landels (1960, 9) gives a list of relative meanings of the word *aulos* in later sources, all associated with the idea of a tube or socket. He believes though that the second mention of the word in *Odyssey* (22.18) meaning “a jet of blood” (*Suda Lexicon*, s.v. “αὐλός”) suggests a different root. Nevertheless, the use of the word in this context is not far from its original meaning as it is associated with the double channel of the nostrils (Anderson 1994, 32 n. 19).

³ Sachs 1926, 23; *MusikTanz* 20; Bélis 1986, 21; West 81.

signalling tools facilitating collective human activities, urban or rural (Dumbrill 1998, 391). The use of animal bones for the construction of primitive flutes (see for instance AU.10, 16, 25) gives precedence to the connection with pastoral activities, a view that is corroborated by some of the earliest iconographic representations of wind instruments.⁴ It is possible though that both meanings (“tube” and “dwelling”) could derive from a common primary root designating a defined or enclosed space in general. Such a hypothesis of an indirect association could explain the otherwise conspicuous overlapping in phonetics and deviation of meaning between *aulos* and *aule*. In the light of the generalised notion of a defined, limited and elongated (like-a-tube) space, *diaulos* can also be easily understood as a compound word; and it is a perfect description, indeed, of the double foot-race.⁵

The earliest use of the word *aulos* as a musical instrument also comes from the Homeric Epics, the *Iliad* this time, where it is met twice (10.13 and 18.495). As the Homeric references to the *aulos* have been used invariably by scholars in order to argue for the late introduction of the instrument from the East (Syria, Phrygia or Asia Minor), it is important to review some of the problems regarding its first literary mention.

In Book 10 of the *Iliad* the Greek troops are listening from far the *auloi* and the *syrinx* (panpipes) played at the campfires of the Trojans.⁶ In Book 18 the *auloi* are being played at the wedding scene represented on the shield of Achilles along with the *phorminx* (a type of lyre).⁷ Both passages are controversial and have been challenged by ancient and modern scholars to be later interpolations. The Alexandrian scholiasts have launched a discussion on the authenticity of the specific verses referring to the music accompaniment on the shield of Achilles that continues to the present.⁸ A similar wedding scene is described in the *Shield of*

⁴ See for example an Akkadian cylinder seal with a representation of a pipe player seated next to another figure that makes butter amidst quadrupeds, or a Sumerian seal in the Louvre presenting a seated shepherd playing a long vertical flute in the company of his dog (Spycket 1972, 175, fig. 27 and *History* 71 respectively). Spycket remarks that in the Akkadian texts of the beginning of the 2nd millennium, flutes and reed pipes are exclusively pastoral instruments. It is also plausible that hunting and the attempt to imitate animal voices in the manner that is still done today (using whistles) also has a merit in the introduction of aerophones.

⁵ A third etymology of the word *aulos* from *aemi* (to sing) has been suggested by Curtius (reference in Landels 1960, 9).

⁶ *Il.* 10.12-3, “θαύμαζεν πυρὰ πολλὰ τὰ καίετο Ἰλιόθι πρὸ αὐλῶν συρίγγων τ’ ἐνοπήν ὄμαδόν τ’ ἀνθρώπων”.

⁷ *Il.* 18.494-5, “κοῦροι δ’ ὀρχηστῆρες ἐδίνεον, ἐν δ’ ἄρα τοῖσιν αὐλοὶ φόρμιγγές τε βοήν ἔχον”.

⁸ For a detailed discussion on this passage see Andersen 1976 and more recently Revermann 1998 who not only accepts the authenticity of the music accompaniment, but also suggests that a singer (*aidos*) was participating as well, mentioned in a verse now lost. In favor of the music accompaniment

Heracles, a 7th century poem composed in the style of Hesiod. The decoration on the shield is modelled on Homer's account of the shield of Achilles (*GMW i* 33, 36-7) and the *aulos* is indisputably mentioned this time, along with dances, panpipes and *phorminges* (stringed instruments). This of course does not answer the question whether the whole description of the shield of Achilles is a later interpolation, as the *aulos* could have been equally copied by the later poet (following the Homeric prototype) or added on the Homeric text by analogy to the later poetic creations. It shows, however, that the *aulos* player must have been in place in the Homeric text no later than the 7th century.

The reading of ἀὐλῶν συρίγγων τε (*aulōn syriggōn te*) in Book 10 meaning “*auloi* and panpipes” has also been disputed. Anderson argues that in Homer the word *aulos* is never used alone to identify a musical instrument; he thinks that the general meaning of the word *aulos* as “tube” is far better established, in contrast with the dubious passages of Books 10 and 18 that have a musical context (Anderson 1994, 33). Therefore he concludes that only the *syrinx* (panpipes) is played here and the word *aulos* meaning “tube” is being used in a generalizing sense.⁹ This is in analogy with the generalising use of the word *aulos* meaning “wind instrument” in later literary sources, followed by a term indicating the specific type of *aulos* (for example, *aulos parthenios*, *aulos Phrygios* etc.).¹⁰ But “*aulos syrinx*” is not found in any other source; contrarily, the term *syrinx* is used independently to designate the panpipes.¹¹ Anderson's interpretation would give an archaising tone to Book 10 which does not agree with the idea of it being a later creation, but this argument alone cannot be used as definite proof.

is Anderson, who also notes on the importance of *aulos* playing in civic life (Anderson 1994, 34); similarly Barker comments on the great involvement of music in ancient Greek wedding ceremonies (*GMW i*, 22 n. 11 with references). Contra West, who also makes the worthy remark that, although the epics are full of instances where *auloi* are regularly used later, such as paeans, dancing, banqueting, sacrificing, marching to battle etc., *aulos*-playing is never mentioned. West attributes this to the supposed low status of the *aulos* and its unsuitability for the heroic context of the poems in contrast with the *phorminx* (West 82, 329). This would conform to the arguments on the pastoral origin of the *aulos* already mentioned.

⁹ Contra Barker (*GMW i* 19) and Mathiesen (1999, 178) who accept the reading of both instruments.

¹⁰ See Sachs (1962, 23-4) and Michaelidis (1989, 65-9) for lists with names of various types of *auloi*. In his doctoral thesis Landels offers a valuable and exhaustive discussion on the literary references (Landels 1960, 43 ff.). He carefully examines these type-names mainly found in Pollux and Athenaeus (often referenced in the lexicographic works of Suda and Hesychius), and classifies them according to the kind of information that they provide. He detected five categories that indicate a) range of pitch, b) country of origin, c) structural details, d) context of usage and e) miscellaneous. Anderson's “*aulos syrinx*” would belong to Landels' third category, but Landels has not included such a type.

¹¹ For the term *syrinx* see below, chapter 3.3.1.

The Homeric text does not provide any indication whether the word *aulos* refers to a single or double instrument, with or without reed (end-blown or reedpipe). From the reference to the *syrinx* it becomes apparent that end-blown instruments were known. It is probable that, since *aulos* and *syrinx* were applied together in Book 10 of the Iliad and *syrinx* is an end-blown instrument with many tubes, the *aulos* may refer to a different type of instrument like the flute or the reedpipe(s).

3.1 Free aerophones (bullroarer)

Hornbostel and Sachs divided the class of free aerophones into the sub-classes of displacement, interruptive (idiophonic and non-idiophonic) and plosive aerophones, according to the manner that the air-stream interacts with the sound agent (reed, lamella or other object). Only certain instruments belonging to their class of non-idiophonic interruptive whirling aerophones (*Hornbostel-Sachs* 24, 412.22) will be discussed here.

Instruments with a thin body sharp at the edges that are tied to a chord and produce a hissing sound when whirled fast with a rotating movement are classified as free aerophones and are commonly known as bullroarers. They belong to Sach's earlier stratum and are noise makers connected with ritual and magic in primitive cultures (*History* 41 ff., 63). Velocity of rotation and size determine the pitch; the faster the instrument is whirling, the higher the pitch. Furthermore, irregularities on the edges of the bullroarer may influence the harmonic content of the generated sound. The humming sound that is produced is unmelodic and associated with the roaring of an animal, the sound of thunder or with ancestor spirits; according to Picken, the latter may be due to the similarity of the whirling noise of the bullroarer with that of the speaking human voice and in particular with certain vowel formants like *ü*, *eu* and *u*, as it has been shown by the study of bullroarer sonograms (Picken 1975, 346). The bullroarer is mainly used as a toy today (Anoyanakis 1979, 206; Picken 1975, 344, 372), but its initial significance and connection with fertility and initiation rites is still prominent in many parts of tropical Africa and Central Australia where it can only be performed by initiated boys (*Survey* 549 ff.).

Bullroarers can be made of any hard material such as wood, metal, ivory, bone or stone. There are two varieties, according to construction and playing action:

a) Oblong blades, sometimes with irregular edges, that are perforated at one end for the attachment of a chord. These are rotated rapidly above the head in order to resound and

they are still found in many cultures today. One of the earliest known examples of this type comes from Stone Age Judah (10th-7th millennium BC); the oblong blades are decorated with short incisions (possibly indicative of fish-symbolism) and pointed at one end (Braun 2002, 53-4, fig. II.3).¹²

b) Discs or blades of various shapes (but usually circular or rhomboid), sometimes with irregular edges, pierced in the centre so that a loop cord can pass through (Picken 1975, pl. 28). This type is also known as buzzer or whirling disc; it is widely distributed and nowadays is used as a mere toy. The playing action of the buzzer/whirling disc is different from that of the bullroarer, as the object rotates in the plane of its longer axis about a central point, the direction of the rotation being reversed rapidly.¹³

In ancient Greece the bullroarer is known as ῥόμβος (*rhombos*), a word that also denotes loud noise, like the sound of the *tympanon* (Pindar *Fragm. Dithyramb* II, 9) or any spinning or whirling motion, like the flying of the eagle (Pindar *Fragm.* 48). According to ancient lexicographers, the *rhombos* is a piece of wood whirled by a cord and is performed during ceremonies, a description matching the bullroarer of Variation (a).¹⁴ A synonym for *rhombos* is ἰνυξ (*inyx*), which is shaped like a wheel, similar to Variation (b). The *inyx* is used in love magic and its whirling captures the desired person; the same power is endowed to the bird *inyx torquilla*, commonly known in English as wry-neck or serpent-bird (Gow 1939; Nelson 1940). Suda mentions that the *inyx* bird was tied on the whirling wheel, apparently in order to enhance the power of the charm and the efficacy of the magic wheel.¹⁵ From references in Pindar and Theocritus it can be surmised that the instrument *inyx* was

¹² For an even earlier specimen from Europe see Anoyanakis 1979, 375 n. 354. Similar wooden instruments are found in modern Turkey (Picken 1975, 344 ff., pl. 31). In Greece, the bullroarer known as *vouga* also belongs to this type; it is triangular in shape and made of wood (Anoyanakis 1979, 204 fig. 145). See also Gow 1934, 7, fig. 7 for a diamond-shaped tin bullroarer from Australia.

¹³ *Syrvey* 551; Picken 1975, 344 ff. According to Picken, only with Variation (a) the air is intercepted by the rotating device and should be classified as interruptive free aerophone (*Hornbostel-Sachs* 24), whereas in Variation (b) with discs rotating on their axis the air-stream is deflected to different directions; he therefore introduces the sub-class of deflective free aerophones (Picken 1975, 344 n. 1).

¹⁴ Hesychius s.v. “ῥόμβος”, “ψόφος. στρόφος. ἦχος. δῖνος. κῶνος. ξυλήριον, οὗ σχοινίον, καὶ ἐν ταῖς τελεταῖς δινεῖται, ἵνα ῥοιζῇ”. In *Etymologicum Magnum* s.v. “ῥόμβος” reference is made to the mystical character of the instrument. The use of the instrument in rituals is also noted by Archytas (*Fragmenta* 1.57-60). Theocritus (*Idyllia* 2.30) mentions a bronze *rhombos*. In *Anthologia Palatina* (6.309) the *rhombos* is one of the playthings of a boy dedicated to Hermes; it is also one of the toys of Dionysos (Nelson 1940, 453).

¹⁵ Suda s.v. “ἰνυξ”, “ἔστι δὲ καὶ ὄργανιόν τι ἰνυξ καλούμενον, ὅπερ εἰώθασιν αἱ φαρμακίδες στρέφειν, ὥς κατακηλούμεναι τοὺς ἀγαπωμένους. ἔστι δὲ καὶ ὄρνεόν τι, ᾧ πρόσκειται τὴν αὐτὴν δύναμιν ἔχειν. ὅθεν δεσμεύουσι τοῖς τροχίσκοις”. For further literary references and a detailed discussion on the ancient Greek whirling disc see *DarSag* s.v. “Rhombus”; Gow 1939; Nelson 1940; Johnston 1995.

also a lunar charm featuring in new-moon festival rites, as well as a rain charm (Nelson 1940, 449).

Bullroarers of Variation (a) have not been found so far in the Aegean. Only whirling discs are attested archaeologically and pictorially in Greece; they present two forms: rhomboid and wheel-shaped. A marble rhomboid buzzer with concave sides and very sharp corners was found in a 5th century BC context from Paros (Fig. 3.4a; *Dons* no. 77). The Greek instrument has four diametrically opposed perforations in the centre of the flat body. A loop cord would pass through one opposing pair of holes (and possibly a second cord through the other), with the loop(s) of the cord(s) held by one hand and the ends by the other hand. Twisting and untwisting the cords would cause the instrument to spin rapidly around its axis on both directions and hum while being spun. This action is seen on vase paintings of the Late Classical period where the performance of both varieties, the diamond-shaped and the wheel-shaped, is depicted (Figs. 3.4b and c).



Fig. 3.4: Whirling discs. a) Marble rhomboid *rhombos*. From Paros, 5th century BC (after *Dons* no. 77). b) Rhomboid *rhombos*, being played. Attic pyxis, Eretria painter. *BM* Inv. No. E774 (after *LIMC* III:2, Doto, Doso 1). c) Wheel-shaped *rhombos*, being played. Hydria, Meidias painter (after Gow 1934, 4 fig. 3).

Actual wheel-shaped bullroarers have not been found so far and they are only known from vase painting representations. A Late Geometric votive terracotta, now in Boston (published by Nelson 1940), has been associated with the whirling wheel (Fig. 3.5a, b). The object is shaped as a wheel with central spikes; on the flat surface of the wheel are sitting eleven plastic birds with long necks and small beaks. The object is decorated with geometric motifs on both sides and is perforated symmetrically for suspension as it is shown in Fig. 3.5a. In this way, if the cords were twisted so that they unwind and separate, the object could spin around on the plane of its axis in the manner of a whirling disc. Similar terracotta wheels with birds attached on them are also known from Cyprus; they are dated to the end of the

Cypro-Geometric period and probably imitate 8th century Greek prototypes. The wheels have perforations for suspension (two sets, one the upper and another on the lower border of the wheel), but they lack the central spikes. Their context is not known, but they may have been dedicated to sanctuaries of Aphrodite as instruments of love magic (*Coroplastic ii*, 98, cat. nos. LGL:1, 2, fig. 73, pls. XLIV:1, 2).

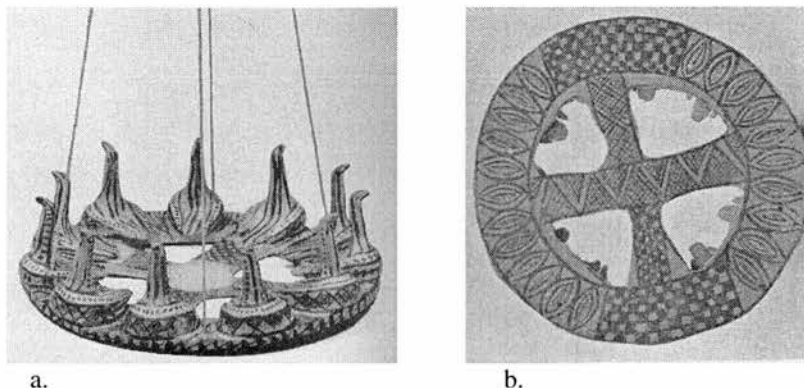
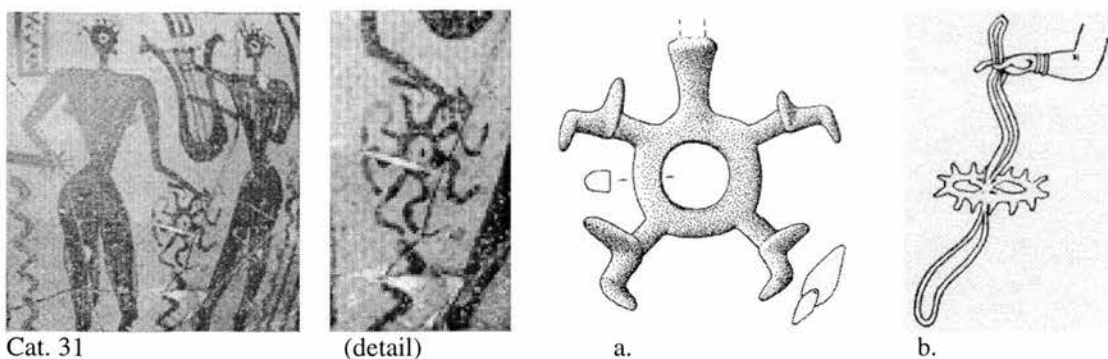


Fig. 3.5: LG terracotta representing a *rhombos* decorated with plastic *inynges*. From Phaleron, Attica. Boston Inv. No. 28.49. a) Upper surface. b) Reverse (after Nelson 1940, 445, 447, figs. 1 and 3)

A circular spiky object held by the leader of a female dance that is depicted on a Boeotian kantharos (Cat.31) should be considered, as it may also represent a *rhombos* or whirling wheel similar to the votive terracotta from Boston:

(VP) **31) Kantharos.** Dresden ZV 1699. From Boeotia, unknown context.



Cat. 31 (detail)
Fig. 3.6. *Rhombos* or *iynx*. Detail of Cat. 31. a) Bronze circular pendant with birds. LG. From Tegea (after Kilian-Dirlmeier 1979, pl.2: 37). b) Detail of an *iynx* from an Apulian vase (after Gow 1939, 6 fig. 4).

Ahlberg 1987 first suggested that the objects held by the first and the last dancer of the Boeotian kantharos (Cat. 31) might be sound devices. It is difficult to envisage the sounding

potential of the first object, having a circular body with a central dot, held by one of its winding spikes (Fig. 3.6). We could hypothesise that it is a strung rattle whose winding parts suspended from a ring would clatter once the object was shaken, but for the moment there is no material evidence to support this hypotheses. On the other hand, it could be suggested that the object might represent the magic wheel known as *rhombos* or *inyx*.¹⁶ The eight winding parts of the object on Cat.31 recall the eleven plastic birds standing on the circumference of the wheel of the votive terracotta *inyx* from Boston. The motif seen on the Boeotian kantharos can also be compared with the shape of two bronze pendants from the sanctuary of Athena Alea at Tegea (Fig. 3.6a), which enrich the basic ring pendant type with bird figures affixed on its circumference.¹⁷ The pendants of course do not have sounding potential and are much smaller than the object seen on Cat. 31,¹⁸ but they might allude to the actual wind instrument *rhombos* or *inyx* consisting of a twirling wheel with a snake-bird sometimes attached to it, as it is reported in Suda. Similar in concept is a *rhombos/inyx* representation on an Apulian vase that shows multiple short spikes on the periphery of the disc (Fig. 3.6b). The way that the object of Cat. 31 is held is problematic for our identification, since it does not allude to the playing action of the whirling disc as seen on Figs. 3.4b and c; neither does it conform with the Apulian representation where the instrument is held from the cord when it is not played. It is possible that the LG painter was having difficulties to represent the performance of the whirling wheel and therefore chose to depict only the instrument being held and shown in frontal view. The large *rhombos* seen on the Apulian vase (Fig. 3.6b) suggests that the size of the object of Cat.31 might not be as exaggerated as one is inclined to think at first sight. The combination of *rhombos* with string instrument performance is attested on another Apulian vase also showing a harp and a tambourine (*DarSag* s.v. “Rhombus”, 864, fig. 5941). The compositional syntax of the Boeotian kantharos does not allude to love magic and, given the adult nature of the female dancers with female attributes,

¹⁶ The circle-and-spikes combination recalls similar motifs on pottery and terracottas (see for instance the eight-spoke swastikas on the chest of Cat. 62). The interpretation of the swastika and the wheel, rosette or dotted circle with spikes as “sun symbols” is favoured by some scholars (Roes 1933; Bouzek 1997). With regard the use of these motifs in the Minoan-Mycenaean art, Nilsson claims that they are decorative in most cases (or sometimes represent actual objects) and that they do not allude to a cult of the Heavenly bodies (Nilsson 1950, 413-420; Bouzek 1985). Similarly, the use of the swastika motif in Geometric vase painting has been interpreted by Ahlberg as a visual indicator of accentuated motion rather than a cult symbol (Ahlberg 1971, 296).

¹⁷ See Kilian-Dirlmeier 1979, 12, pl. 2:36, 37. Other votive pendants from Greek sanctuaries show a single bird perched on the rim of an upright disc, or standing on a wheel set horizontally, like the votive terracottas from Boston and Cyprus (Kilian-Dirlmeier 1979, nos. 39, 887-933, 944, 949, 950A, 990-993, 1015-1023, 1064-1068, 1075, 1079, 1080, 1110).

¹⁸ The pendants are ca. 0.06 high, whereas the object of Cat. 31 is estimated to be around 0.20-0.25 high in proportion to the forearm of the dancer holding it (for which I have assumed an average length of 0.20). It should be noted that similar are the dimensions of the clay *iyges* from Boston and Cyprus, that are between 0.18-0.21 in diameter.

initiation rites should also be excluded; a ceremony associated with a lunar festival with mystical/magical character seems a more plausible hypotheses for the performance context of the scene (for the object held by the last dancer see chapter 4.3.1.3).

3.2 Lip vibrated aerophones

3.2.0 Classification and terminology

In lip vibrated aerophones, commonly referred to as trumpets, the player's lips form in themselves a double reed. In their classification Hornbostel and Sachs distinguished between horns with curved or folded body, and trumpets with straight body. Marcuse noted that horns were made originally of animal horn or task and later of wood and metal, whereas trumpets were initially made of a length of bone, wood or bamboo, before they were materialised in metal (*Survey* 745). Another distinction between horns and trumpets is that in the former the greater part of the body is conical, whereas the latter are mostly cylindrical with a flare at one end (*NGDMM* s.v. "trumpet", 211). According to Sachs, the earliest trumpets had no mouthpiece, no expanding end or bell and no finely proportioned tubes, but were megaphones cut from a hollow branch, a large cane or made of any other hollow body "into which the player spoke, sang or roared" (*History* 47; Bate 1966, 83 ff). Large conch-shells were used in a similar way by primitive man (*History* 48; Baines 1957, 171).

We find the earliest reference to lip vibrated instruments in the *Iliad*, under the term σάλπιγξ (*salpinx*). The word denotes the trumpet; it is mentioned in the context of a battle (*Il.* 18.219) and in a simile describing the majestic intervention of the gods accompanied by the sound of trumpets coming from the sky (*Il.* 21.388).¹⁹ The words κέρας (*keras*) and βυκάνη (*bykane*) are used for the natural horn.²⁰ Both the *salpinx* and the *keras* were primarily associated with military activities as signalling devices.²¹ Trumpets also marked the commencement of games (Sophocles *Ajax* 17) and the assembly at the Bouleuterion (Aeschylus *Eumenides* 567-573), whereas the horn may have had additional pastoral use (Michaelidis 1989, 80; Paquette 1984, 72). According to later literary sources, horns and trumpets were invented by the Tyrrhenians/Etruscans (Athenaeus *Deipnosophistae* 4.184a,

¹⁹ *Il.* 18.219, "ὥς δ' ὅτ' ἀριζήλη φωνή, ὅτε τ' ἴαχε σάλπιγξ"; *Il.* 21.388, "...ἀμφὶ δὲ σάλπιγξεν μέγας οὐρανός...".

²⁰ Michaelidis 1989, 80, 278; Klein 1967 with further references.

²¹ For military use of the *salpinx* see Xenophon *Anab.* II 2, 4; Aeschylus *Seven Against Thebes* 393-4; Euripides *Phoen.* 1377-9 and *Rhesus* 988-9.

82; Pollux *Onomasticon* IV, 75). The characteristic feature of the trumpet having a narrow cylindrical body that opens in a wide bore or flare is also noted in literature.²²

Animal horns may have been used in Anatolian Neolithic cultures; the instrument is attested in Akkadian literature, in Egypt, Anatolia and Syria (Ugarit) during the 2nd millennium BC (*History* 73, 100; Braun 1997, 75; Caubet 1987 and 1996); it is also depicted on a relief from Carchemish (Duchesne-Guillemin 1980-1, pl. 40). In Israel/Palestine the ram's horn, known as *shofar*, was an important instrument of the temple, giving signals at the synagogue and at war or proclaiming the new moon and full moon; however, there are no archaeological remains of this instrument prior to the 3rd century BC (Sellers 1941, 42; Braun 1997, 75 and 2002). Similarly, in Greece there are no pre-Classical representations of the natural horn, which is first depicted on a late 6th century BC Black-Figure amphora from the Amasis painter, played by a soldier (Klein 1967, pl. XI; Paquette 1984, 73, K2; *MiB-Griechenland* 80, fig. 50). The military significance of the instrument is complemented by its association with the Dionysian cult. Blowing the *keras* is performed by soldiers and satyrs that are also holding shields (Paquette 1984, 72-3, K1-2); the representation of a nude youth sitting on a wine skin and bringing a horn at his mouth is puzzling, and it might be that he is not blowing a horn but drinking from a horn-shaped vessel (Paquette 1984, 73, K-3; *MiB-Griechenland* 80, fig. 51). In Cyprus the horn is not attested pictorially.

The conch shell is first mentioned in Greek literature in association with music making in the 6th century, although it was used as a trumpet much earlier. The poet Archilochus refers to the "sea trumpet" (θαλασσίην σάλπιγγα) in one of his elegies (*Eleg. et Iamb. Fr.* 214.1), but the common term denoting the triton shell, that was used especially as a signalling device, is κόχλος (*kochlos*).²³ Smaller marine shells such as limpets were also used as whistles by children; these are referred to as λεπάδες (*lepades*).²⁴

²² Anaximander Phil. *Testimonia* 21.6-7, "...ὥς ἀπὸ σάλπιγγος ἐκ κοίλου τόπου καὶ στενου...".

²³ One of the Scholiasts of Homer mentions that the triton (*kochlos*) was used before the discovery of the bronze trumpet by the Tyrrhenians (Etruscans). Many authors refer to the blowing of κόχλος (*kochlos*) (*Epimenides* Phil. Fr. 3b, 457 F. 18.6, 18.8, Fr. 24.6, 24.9; *Eratosthenes Catasterismi* 1.27.7, 1.27.11; Euripides *Iphigenia Taurica* 303, 399; Athenaeus *Deipnosophistae* 10.85.50 and Pausanias *Perieg.* 8.2.7.6). Aristotle, in his *Historia Animalium*, distinguishes within the molluscs (described under the general term κόχλος) the species used as a sound device, which he refers to as κήρυκας (*kerukas*) (*Arist.* HA 528a.10, 528b.30; PA 679b.14).

²⁴ *Dicaearchus* fr. 99W; *West* 121 and n. 195. Small shells pierced on their wall and blown as whistles are also known from pre-historic Egypt (Hickmann 1949b).

3.2.1 Shell trumpet

Conch shells, among other species of marine shells, have been used in the Aegean since prehistoric times, primarily as an important source of food.²⁵ In the Neolithic and the Bronze Age periods triton shells also had extensive secondary usage. They provided material for the making of jewellery and a variety of equipment such as vases, tools, spoons or ladles. Their acoustic properties were also appreciated and they were blown as trumpets (Karali 1999, 19 ff). Conch shells have been used as sound devices from the Neolithic period, if not earlier. Triton shells with broken apices (that would enable blowing), dated as early as the 3rd millennium BC, are known from Italy and Europe (Germany, Hungary and Switzerland) (*Aign* 147, n. 4; Skeates 1991). Two such Neolithic tritons (one of which can still be sounded) are known from Crete (ST.3, 4), and another one comes from Skyros (ST.26); these prove the early musical use of the conch shell in the Aegean. Nevertheless, the majority of triton trumpets from the Aegean and Cyprus come from Bronze Age contexts (Karali 1999, 23; Åström & Reese 1990; *Aegean* 35-7, 64), with sporadic specimens known from the 1st millennium BC.

Triton trumpet playing is not attested in Mesopotamia (Aynard 1966; Reese 1985, 361); in the Levant conch shell trumpets appear in the 11th century BC and their introduction was probably connected with Aegean and Cypriote presence and influence on the Syro-Palestinian coast at the end of the Bronze Age. In 11th century Tell Qasile, for instance, where one of the earliest Levantine triton trumpets was found, Mazar recognised Mycenaean and Cypriote elements in both temple architecture and cult objects (masks and kernoï) that were used in rituals.²⁶ Similarly, Braun noted that the conch shell trumpets found in

²⁵ Evidence for the consumption of triton shells come from Aspri Petra Cave at Kos (Late Neolithic), Kephala at Kea (Sub-Neolithic), Chalandriani at Syros (EC), Mallia (MM), Syme Viannou and Kommos (LM) at Crete (Karali 1999, 14-17). Half a dozen triton shells from room Delta 16 at Akrotiri on Thera (found with other species) have been regarded as food debris probably associated with the ritual (Renfrew 1985, 327). Triton is an edible species that actually remained part of the Cretan diet until the beginning of the 20th century (Xanthoudides 1906, 154).

²⁶ Mazar associated the Mycenaean with the "Sea People" (Mazar 1985, 119 ff.) and maintained that the Aegean elements came in Philistia during the immigration of the "Sea Peoples" mainly in Cyprus and secondarily in the Levantine coast in the 12th century, where they settled and were absorbed whilst retaining much of their own tradition. The presence of Ashdoda figurines in Tell Qasile, which Mazar regards as "the best evidence of Mycenaean tradition in the Philistine cult" attests further to the Aegean connection (Mazar 1985, 126; Mazar 1980, 119).

Israel/Palestine come from areas within the Philistine/Phoenician cultural sphere, and are not associated with previous Canaanite sites (Braun 2002, 181).

The conch shell was used in many parts of Greece and in particular in Crete, Cyprus and the Aegan islands until fairly recently to broadcast messages among seafaring people or to raise an alarm. Similar use was common inland amongst landmen such as postmen, field wardens and village guards, whereas shepherds²⁷ and camel-drivers of Cyprus also used it to direct their herds (Xanthoudides 1906, 154; Kinch 1914, 160; Anoyanakis 1979, 202). Evidence of pastoral use is also reported from many parts of the world, such as North Wales, Lithuania, Italy and others (Jackson 1917, 32). In the Mediterranean the conch shell is still blown today as a signal horn by fishermen at the Southeast coast of Turkey and the Italian peninsula (Braun 2002, 181; Picken 1975, 552). On the islands of Ischia, Elba and Sicily its functions are similar to those in Greece, whereas at Chieri and Genoa it is accompanying significant religious events like the ceremonies during the Holy Week at Easter (Jackson 1917, 32-33; Skeates 1991, 24).²⁸

The conch species more often employed as trumpets in the Mediterranean are the *Charonia sequenzae* with a smooth body and a maximum length of 0.30 and the *Charonia nodifera* (or *Tritonium nodiferum Lamarck*) with a rougher, thick-walled shell consisting of 8-9 whorls and attaining a maximum length of 0.40 (Reese 1990, 7; Karali 1999, 22). These are also known as triton or trumpet shells. The *cassis* and the *strombus* are species also used as trumpets outside the Mediterranean (Baines 1980, 42).

There are two ways to create a blow hole and convert a shell into a musical instrument. The first is to cut off the tip of the spire, the so-called apex (Fig. 3.7b, c), a method preferred if the spire is shallow (for the terminology of the conch shell see Fig. 3.7a). Usually the formation of the spire itself provides a short of mouthpiece. If the spire is steep, the second option is to open a hole on one of the lower whorls to the side of the spire, through the wall and into the columella (Fig. 3.7d). If the tip of the apex is cut the instrument is end-blown but when the mouth hole is opened laterally the shell is side-blown (*History* 48-9, fig. 25;

²⁷ Kinch mentions the use of triton to direct cattle on the island of Rhodes: "Les gardiens de troupeaux de boeufs se servent encore á Rhodes se ces bucinae pour donner des signaux" (Kinch 1914, 160).

²⁸ For the distribution and variety of uses and significance of the shell trumpet around the world see Jackson 1917, 30-69; *History* 48 ff; *Survey* 824 ff.; Baines 1980, 42-4, Reese 1985, 362 ff. and the relevant entries in *NGDMI*.

Survey 823; *NGDMI* 1, 461). Sometimes a separate mouthpiece can be added (*NGDMI* i, 461, Baines 1980, 42).

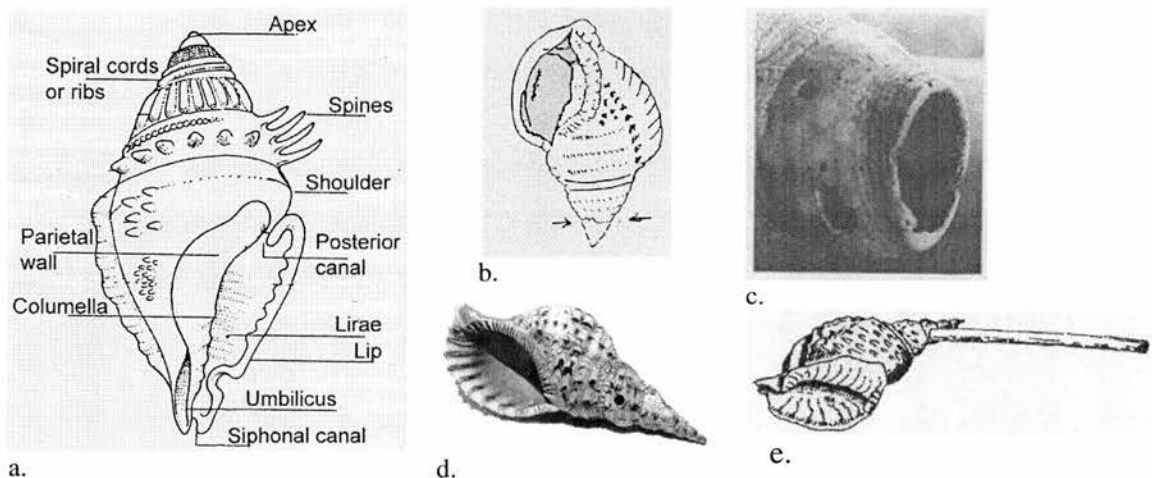


Fig. 3.7: Conch shell trumpet. a) Parts of a conch shell (after Karali 1999, 125, fig. 41). b) Cutting of the apex of a triton shell (after Karali 1999, 102, fig. 15B). c) Cut and smoothed apex of a shell trumpet from Hazor (after Braun 2002, 182, fig. IV.38b). d) Shell trumpet with side blowhole. e) Side-blown trumpet shell with long mouthpiece (after Baines 1980, 42, fig. 3a).

Generally a shell trumpet produces one note. This does not affect its effectiveness as signalling device; in New Guinea for example, different combinations between long and short notes give out different messages (Baines 1980, 43) and it is possible that similar methods were also used worldwide. In addition, the pitch can be modified by the player inserting his hand into the aperture or by the use of finger holes that are usually drilled on the parietal wall. Both techniques are attested ethnographically (*Survey* 824-6; Montagu 1981, 273-4). A Bronze Age conch shell trumpet from Hazor (Israel/Palestine) has a small finger hole drilled close to the end through which the triton was blown (Fig. 3.7c), raising the pitch of the instrument by a semitone (Braun 2002, 181). Similar drillings found on the wall of Greek tritons from Crete and Phylakopi (ST.1, 12, 21a) may also have served as finger holes, although this has not been ascertained so far. Some cultures, such as on the Indian subcontinent or the Hebrides and the Maori of New Zealand, insert a long mouthpiece into the blowhole for a better control of pitch or to give a desired note by increasing the windway in this manner (Fig 3.7e; Baines 1980, 42). Harmonics are possible but seldom utilized. One

exception is the Japanese *hora*, where three, sometimes even four, pitches of the harmonic series may be employed (Fukui 1994).²⁹

In his 1981 article on the conch shell trumpet Montagu demonstrated the difficulty to determine and measure the sounding length of the conch-shell due to the fact that it is coiled helically. He therefore compared the volume of a conch-shell with that of a bamboo cylindrical trumpet which is used as a substitute for the conch shell in some cultures and produces the same fundamental. Montagu proposed that the whole shell acts like a vessel where the vibrations of air are transmitted through the wall of each whorl rather than along the air column (274-5). He questioned, however, his suggestion because he observed that the conch shell actually behaved as a conical tube that overblows the octave (278), whereas vessel instruments (like vessel flutes or ocarinas) do not have the potential to produce any harmonics.

Recent analysis of a *Turbinella Pyrum* shell trumpet has used X-ray tomography pictures that reveal the shape and size of the cross section of the columella at every half-turn as well as its corresponding location with respect to the longitudinal axis, in order to approximate the columella profile as it would appear if the conch were unwrapped (Taylor et al. 1994). It has thus been demonstrated that the profile of the columella has indeed an exponential flare that gives the conch shell its characteristic timbre and is responsible for its potential to amplify and project sound in long distances. Additional spectral analysis has shown a strong fundamental frequency and five overtones, whose placement and relative amplitudes suggest that the exponential flare of the conch shell duct is actually similar to that of a French horn.

The above evidence underlines the significance of the columella for the sounding of the conch shell, as it provides an exponential flare in a coiled and contracted form. This is not compatible with Montagu's hypothesis of a natural vessel-type instrument.³⁰ Nevertheless,

²⁹ Picken 1975, 552 also remarks on the potential of the *kabuki*, the shell trumpet played at the coast of Turkey, to generate one or two harmonics.

³⁰ Montagu 1981, 277 rightly questions whether there is "such an acoustical entity as a vessel trumpet" where the pitch is determined solely by the volume of the vessel; indeed, the qualities of a trumpet (with an exponential bore opening to the outer air) and a vessel instrument (with enclosed air) are rather incompatible. Cabello 1988, 113 classifies three small-sized Pre-Columbian pottery conchs in the Museo de America, Madrid (Inv. Nos. 3948, 85/5/3 and 85/5/16) as "conch-like vessel flutes",

the experiments do not answer how the sound waves travel within the shell; the results of an exponential flare are in fact congruent with the focal point of Montagu's argument that the sound might be diffused through the walls (from one whorl to the next) into the entire body of the shell rather than travel along the air column until it reaches the outer air, as is the case with the French horn (Montagu 1981, 274).

From the above analysis it is apparent that the columella, the complicated spiral internal structure responsible for the flaring duct profile of the shell, is essential for the characteristic acoustic properties of the conch shell and for the ability to blow it as a trumpet altogether. Consequently, one would expect any natural archaeological specimen where this internal structure is removed to have been destined for some other function rather than musical, most reasonably to be a vessel or ladle, as the elimination of the columella would increase the triton's volume as a container. Scholars agree that the important criteria for distinguishing between triton vessels and trumpets are the removal of the internal axis at the former and the detachment of the pointed apex of the shell at the latter.³¹ From the large number of triton shells found in Greek and Cypriote mainly Bronze Age contexts, less than 30 examples are reported to preserve the columella and to have a modified apex or lateral hole that would enable them to be blown; these may be interpreted as trumpets (see Appendix II-Shell Trumpet). The tritons from Knossos (ST.3), Myrtos (St.5a) and Kythera (ST.20) can still be sounded, but for the rest of the examples we must rely upon the validity of our criteria, especially with respect to fragmentary tritons.

because although they attain the internal spiral, they are blown through the natural aperture of the shell and not through a cut off apex, the air being contained within the shell-shaped vessel all along (see also Marti 1970, 148 figs. 127, 128). This is not the case with a fourth specimen (Inv. No. 1413) which, like the natural examples, has its apex opened and the flaring mouth (aperture) of the shell communicates the air to the outer ambience. For X-rays of similar "conch-like vessel flutes" see Montagu 1981, 276, pl. 17-18.

³¹ Natural specimens with removed columella generally have the apex intact and additional workmanship usually involves broadening of the upper body of the shell and smoothening of the mouth, which makes sense for a vessel. However, the majority of triton shells preserved in the archaeological record are unmodified (Reese 1985, 357; Åstrom & Reese 1990, 1). Complete specimens preserving both the columella and the apex intact, can not be regarded as musical instruments due to the lack of a blow hole; contrarily, they function perfectly containers and as pouring or libation vessels, with the siphonal notch making an ideal pouring spout (Reese 1985, 364). Otherwise, they can have an ornamental/decorative function and suspension holes are not uncommon. The recurrence of complete shells in cult and burial contexts underlies their symbolic significance (Reese 1985; Åstrom & Reese 1990; Karali 1999).

A rather common, but not constant, feature of specimens interpreted as trumpets (that is, shells missing the apex and preserving the columella) is the quality of workmanship at the apical end. Some examples, like the triton trumpets from Phaistos (ST.6), Gypsades (ST.12), Kephala Chondrou (ST.13), Kition (ST.16) and Hala Sultan Tekke (ST.18) have their apex severed carefully in a professional way, smoothed and bearing signs of wear. Such detail deserves attention, but is certainly not the rule. Regarding the examples where the apex appears to be broken off rather than carefully cut and smoothed, like for example the tritons from Myrtos (ST.5), one can speculate that a mouthpiece might have been employed, a practice already noted ethnographically outside the Aegean, which would deem unnecessary the extra workmanship on the apical end. These morphological features are important for the interpretation of the archaeological remains of natural triton shells from the Mediterranean, although they are not always stated in the excavation reports.

The rule regarding the preservation of the internal columella generally applies to many of the replicas (skeuomorphs) of shell trumpets found worldwide. Montagu discusses some pottery conch shell trumpets from the Pre-Columbian Peruvian Mochica Culture and notes that they imitate the natural internal structure of the shell despite the technical difficulties that this entails; these clay triton trumpets also have an open apex like their natural prototypes, leading to an air chamber enclosed by the columella (Montagu 1981, 275 ff, pls. 13-6). Pre-Columbian pottery conchs usually have an open apex, just like natural shell trumpets, so that they can be blown as horns; Fig. 3.8 shows an example of this type, with additional finger hole opened on the wall.³² The Aegean skeuomorphs, however, present a different picture and their identification as musical instruments is problematic.

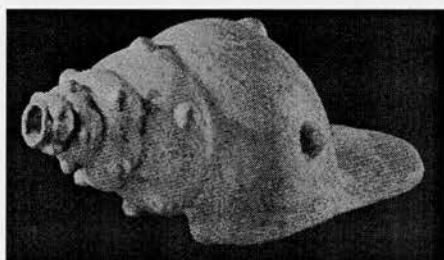
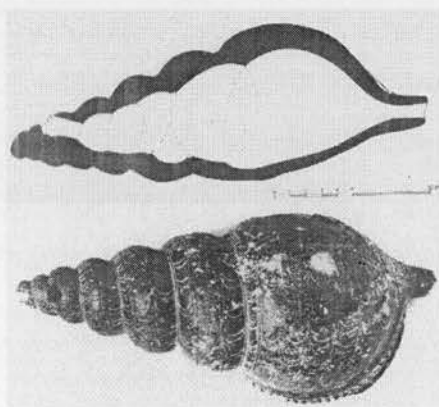


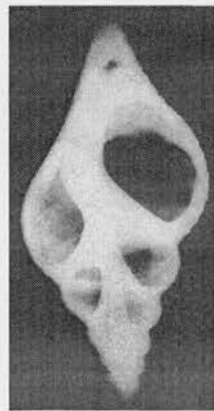
Fig. 3.8: Clay triton trumpet from Colima, Mexico. Ca. 300-800 AD (after Marti 1970, 70 fig. 49).

³² See also Cabello 1988, 104, 113 for a similar example in Madrid (Inv. No. 1413).

Conch shell replicas come mainly from Bronze Age Crete where they were copied in clay, faience and stone during the Protopalatial and Neopalatial periods and are usually dated at LM I (with only a few exceptions in MM II-III and LM III). Unlike the natural shell itself they disappear from the Postpalatial and EIA deposits, representing a short-lived trend in the long life-span of conch shell usage. In their study of the stone triton shell from Mallia, Baurain and Darcque provide a thorough examination of 22 pottery, faience and stone triton skeuomorphs from Crete, Mycenae, Cyclades and Rhodes (Baurain & Darcque 1983). Their detailed descriptions demonstrate that these skilfully crafted replicas reproduce the overall shape and the visible external features of the shell but, unlike the Peruvian skeuomorphs, their interior remains hollow and conical in shape, simply scooped out and smoothed, just like the natural tritons with removed columella.³³ Six of the examples catalogued by Baurain and Darcque allude to the internal spiral structure of the columella, with their interior following their exterior spiral profile, but remaining hollow without reproducing the columella (Fig. 3.9 a).³⁴ As the interior is hollow, the mouth is nothing more than an oval shaped opening placed off the central axis of the shell.



a.



b.

Fig. 3.9: Triton shell replicas from Crete.
a) Chlorite. Malia Palace, HM Inv. No. 11246. MM:III (after Baurain & Darcque 1983, 12, fig. 8).
b) X-ray of a Minoan clay triton from a Private Collection in New York (after Lloyd 1994, fig. 8).

Most triton replicas have a well defined, drilled and elongated umbilicus, which is replaced with a spout in the less naturalistic examples. Under no circumstances is the apex cut off or

³³ This is the case for eight of the examples discussed by Baurain and Darcque, their catalogue numbers 9 (Palaikastro HM 505), 13 (Sklavokambos, HM), 15-16 (Gournia HM 2825 and 2826), 17-18 (Mallia, MSM 65M494 and HM Inv. No. unknown), 19 (Private Collection) and 20 (Mycenae, NMA 166) as well as for a clay triton from Thera, Akroteri (Baurain & Darcque 1983, 20 n. 7; Lloyd 1994, 80 fig. 13).

³⁴ The closest replica of the shell structure is the obsidian Dolium from Agia Triada (HM 360), with a two round spire interior (Baurain & Darcque 1983, 60, cat. no. 1, fig 37; Warren 1969, 91, P497) as well as the chlorite triton from Mallia (thoroughly examined by Baurain & Darcque 1983). The stone triton replicas from Kalyvia Messara (HM 177) and Knossos (HM 45 and KSM) are also reported to have spiral interiors to a certain extent (Baurain & Darcque 1983, cat. nos. 2, 5 and 6 respectively). For the rest of Baurain and Darcque's catalogue the treatment of the interior is not known.

drilled as one would expect to be the case in a natural shell trumpet, or like the Peruvian pottery skeuomorphs.³⁵ The only Minoan replica that successfully imitates the internal spirals of a natural shell is a clay triton shell from a private collection in New York (Fig. 3.9b); this triton, however, not only lacks an open apex, but it has also replaced the usual drilled siphonal canal or spout with a flattened triangular area above the mouth that is perforated for suspension.

The New York clay shell clearly demonstrates that the Minoan triton replicas did not have a musical function, as the potential acoustic effect of the reproduced columella was not exploited. The example from Malia examined by Baurain and Darcque has a lateral hole near the apex on the side between the second and third whorl (Fig. 3.9a), similar to that of the side-blown shell trumpets. Baurain & Darcque claimed that they were unable to produce any sound when blowing through the lateral hole which leads into a hollow conical chamber, although they have reservations as to whether sound was produced with the aid of a mouthpiece or similar device. According to the conch-shell acoustics and the importance of the internal columella for the creation of an exponential flare, their results seem to be what one should anticipate.³⁶ Younger's suggestion³⁷ that the open apex of the natural triton trumpet was replaced by the drilled umbilicus or siphonal canal of the replicas is acoustically unfeasible: blowing through the drilled umbilicus into the mouth can not have the same acoustic effect as blowing through an open apex into the columella, because the sound waves would immediately disperse in the air vacuum rather than oscillate in the whorls of the columella (the contracted exponential flare of the shell) before reaching the outer air.

³⁵ The intact apex is noted by Warren who remarks that the stone replicas "do not have holes in the base, so are not rhytons" (1969, 91, pls. 497-9); it is also confirmed by Baurain and Darcque's descriptions and illustrations. Montagu (1981, 274) is wrong in his assumption that all the Cretan skeuomorphs have open apices, probably misled by the only exception of the clay tritons from the Loomweight deposit at Knossos (ST.7) which nevertheless differ in construction (see discussion below).

³⁶ Baurain & Darcque 1983, 54 ff, esp. 56. However, simpler constructions can also function effectively, like the "shell trumpet" of the Mochica culture described by Montagu (1981, 275). It comprises the mouthpiece at the apex followed by a hollow chamber communicating the outer air through the aperture of the shell. Unfortunately, Montagu does not provide an illustration, so the relation of the aperture to the main body is not clear; it is speculated though that it would create some sort of flare. The difference between this example and the Minoan replicas with an intact apex must be stressed.

³⁷ *Aegean* 36; Younger is misled by Montagu's speculations on a vessel-trumpet instrument and therefore insists that all skeuomorphs with a drilled appendix that are completely hollow inside could have been blown as trumpets. He interprets as a blowhole the elongated and drilled siphonal canal that Baurain and Darcque interpret as spout.

Both the construction and the acoustic analysis of the most elaborate Minoan skeuomorphs in stone, faience and terracotta suggest that they were not manufactured with the aim to be blown. Granted that the replicas were intended to substitute for natural tritons, it is likely that they had similar function. The fact that in all cases the accentuation and drilling of the siphonal canal (an element alluding to the usage of the natural triton as pouring vessel rather than blown instrument) is the prevailing detail of manufacture, presents an additional element corroborating to their interpretation as vessels.³⁸

The only examples of replicas with a pierced apex like the natural shell trumpets and the skeuomorphs from other cultures are three small terracotta models painted with red and white bands from MM:IIIB-MM:III Knossos Loomweight deposit (ST.7). Evans and Younger imply that they were musical instruments, even though we lack the practical confirmation of an experiment (*PM i*, 222; *PM iv*, 111; *Aegean* 64). The skeuomorphs are very simple in form and execution, with three concentric rings representing just three whorls of similar length but progressively wider in diameter.³⁹ The mouth appears to be modelled as a simple wide opening without the siphonal canal. From the published photograph it appears that they do not reproduce the internal columella and it is presumed, but not ascertained, that their interior is tubular and slightly conical following the exterior profile. As already mentioned, in many cultures the conch can be substituted by a short trumpet, a simple cylindrical wood or bamboo tube, sometimes with a lateral blowhole (Montagu 1984; Baines 1980, 43).

The clay fragments from Loomweight deposit at Knossos are the only plausible candidates of replicas with possible musical function; however, in the lack of specific measurements of the potential blowhole (at the narrow end) and the internal diameter of the tube of these replicas, it is difficult to ensure their sounding potential. Even if they can indeed be sounded, they should be differentiated from shell trumpets in classification, because their morphology

³⁸ Warren 1969, 91. Baurain & Darcque remark on the axis of the lateral hole which enables the Malia chlorite triton to be used effectively as rhyton (1983, 58) and on the artefact's decoration showing a genius pouring with a jug into the paws of another.

³⁹ Baurain & Darcque questioned their identification as tritons and compared them with a group of beads with similar profile and treatment (1983, 60, n. 9).

(cylindrical or slightly conical tube) differs from that of the prominent flare of the triton shell.

3.2.1.1 Cultic use and deposition of triton trumpets

Sanctuaries

Charonia which are unmodified or made into vessels with the removal of the columella are found in all types of deposits, but shells made into trumpets are known mainly from sanctuaries. The majority of the Minoan triton trumpets come from places of cultic use, domestic shrines or town sanctuaries. In Crete they usually come from within the shrines in association with other objects of ritual use, like offering and libation tables (ST.4, 6, 9, 12); this indicates that they were used during rituals, perhaps as a means to invoke the divinity (Gesell 1985, 4), create a mystical atmosphere or keep the evil spirits away. We do not always have clear indication of the precise deity worshiped in the sanctuaries, but most contexts point to a fertility goddess, identified either by her attributes (dove, cattle etc) or by more specific representations like for example the female parturient anthropomorphic vessel from Kephala Chondrou Viannou. In general, it could be suggested that the rituals in both town and house shrines would aim to ensure the well-being and prosperity of the household, irrespectively of a specific deity.

The distribution of tritons at the Mycenaean sanctuaries at Phylakopi and Methana is in accordance with the picture from Crete, but the triton is associated there with male as well as female deities. In Phylakopi the tritons come from within the two shrines, deposited with other objects of ritual significance; SF1522 from the West shrine (ST.21b) was found at the foot of the stone platform and near a sizable male figure (SF1550) that has been interpreted as a cult image (Renfrew 1985, 225, 362). The nature of the cult is not clear, apart from the assumption that there are two gods venerated, a male and a female (represented by the abovementioned male figure and the so-called “Lady of Phylakopi”).⁴⁰ Renfrew regarded

⁴⁰ Renfrew pointed out that “The complete absence of any indication of horns of consecration or of the double axe symbol from the Phylakopi sanctuary suggests that practices and beliefs here may have differed considerably from those in Crete” (1985, 395). Rutkowski thought that a fertility cult is exemplified by the “virgin goddess” “Lady of Phylakopi”, the bull figurines and the Reshef-type bronzes found at the shrines; he proposed that the latter is an indication of Hittite influence on the cult at Phylakopi (Rutkowski 1986, 185). The custom of triton playing, however, is not found with the Hittites and indicates an Aegean religious practice.

that music played an important part in the cult of Phylakopi as an “experience-inducing device”, exemplified not only with the presence of tritons but also with the tortoise shell fragments found in various assemblages and interpreted as parts of chelys lyres (Renfrew 1985, 363, 383-4; LY.15). At Methana the triton was also found on the stepped bench/altar of the LH shrine (ST.22) where it has been proposed that Poseidon or the local hero Hippolytus were venerated (Konsolaki 2002); the triton would then be well accommodated in the cult place of a sea-god.

In the Levant, cultic use of the conch is attested at Tell Qasile where a triton was found in Temple 200 (Locus 227, Stratum XI), dated at 1100-1050 BC.⁴¹ Mazar supposed that the presence of the triton reflected Aegean practices, as conchs are a rare find in Israel (Mazar 1980, 118). Although there is no direct data about the deity worshipped at Tell Qasile, it has been proposed that a fertility goddess was celebrated at Temple 200, represented by an anthropomorphic vessel of a female with breasts that form two spouts and with both her hands on her belly (Mazar 1980, 25, 73, 78 ff., fig. 18, pl. 29).⁴² Mazar speculated on the possibility of the transmission of an Aegean religious practice to the Philistine culture via Cyprus instead of a local Canaanite phenomenon (Mazar 1980, 81).⁴³ This view, although not conclusive, accommodates the usage of the triton within a fertility cult practice of Aegean origin and explains spatially its presence by means of the Cypriote connection.

The notion of a divinity dwelling or concealing itself in a shell is important in order to understand the cultic connection and transmission of triton trumpet playing. This concept is attested in many different cultures.⁴⁴ In Greece and Cyprus, the Kytherian and Paphian Aphrodite were thought to be born from a shell, and representations of Aphrodite emerging

⁴¹ Locus 227 has been interpreted as a storeroom or treasury and niches of similar use at the back of the temple are known from Lachish and Beth-Shan. However, the two walls defining this area do not have foundations, so another plausible interpretation is that they formed a platform and that Locus 227 was a defined but not secluded area (Mazar 1980, 23 fig. 7, 24, 70-1).

⁴² Vessel figures with breasts that also form spouts are also encountered at Mochlos (*PM i*, 116, fig. 84; Gesell 1985, 188, pl. 71) and Malia (Gesell 1985, 179, pl. 38) in Crete. Egypt and Cyprus offer examples of females holding their hands on their bellies, whereas the physiognomy of the figure is paralleled by the Palestinian artistic style, which sometimes recalls Mycenaean traits and wares (Mazar 1980, 80-81).

⁴³ He pointed out that there are quite a few Aegean and Cypriote cultic traditions observed in Tell Qasile, such as the existence of twin temples, paralleled in Cyprus and Mycenae but not in Canaan, the architectural layout of a sacred enclosure, and objects of the “Sea Peoples” culture which are related to the Aegean sphere, such as lion-shaped rhytons, horn-shaped and anthropomorphic vessels (Mazar 1980, 68, 119; 1985, 124 ff.).

⁴⁴ See Jackson 1917, fig. 6 for iconographic examples of the divinity enclosed in a conch shell from the Aztecs, and fig. facing p. 62 for equivalents from India.

from a shell are found in the Aegean from the 4th century BC (*LIMC* 2.I, s.v. “Aphrodite” nos. 103, 117). The universality and diachronic recurrence of this idea indicates a common origin of a set of beliefs that, in all probability, spring from a combination of observations about natural phenomena that are crucial for food productivity, like for example the connection of the moon with water tides. In this view, tritons and other shells, such as cowries, are firmly connected with preoccupations about birth, fertility and prosperity; they are hitherto incorporated in the rituals that would ensure them and used as talismans (Jackson 1917, 50 ff.; Braun 2002, 182).

Workshops

Some Cretan and Cypriote tritons come from workshops, like those from Fournou Korifi (ST.5), Kition (ST.16) and Hala Sultan Tekke (ST.18). In the workshops the triton may have been used to signal the commencement or the end of the daily activities, but the blowing of the triton trumpet might also have had religious connotations. Although there is no evidence of direct religious activity in the areas that produced triton trumpets at Fournou Korifi, the occurrence of tritons in Room 28 associated with spinning and weaving is in accordance with the deity celebrated at the town bench-sanctuary in the vicinity, which is represented by the so-called “Goddess of Myrtos” (Warren 1972, 208, fig. 92).⁴⁵ Warren suggested that this was a goddess protecting the water supply along with arts and crafts, a prehistoric equivalent of Athena Ergane, as indicated by her attributes (Warren 1972, 210, 266).⁴⁶ If this is correct, then the appearance of triton trumpets in the associated textiles production area may not have been devoid from religious symbolism; apart from the need for the signalling sounds of tritons in the workshop areas, the playing of tritons would also ensure the presence of the local patron goddess who would protect the undertaken activity and increase productivity.⁴⁷

⁴⁵ The “Goddess of Myrtos” has a bell shaped body and unnaturally elongated neck; it is holding a jug and has a series of hatched panels representing clothing at the front and the back, as well as on the clearly marked pubic area (see chapter 4.2.2.3, Fig. 4.35bis,a). Gesell stressed the fertility aspect of the figure protecting the well-being of the whole community, since it was found in a public sanctuary (Gesell 1985, 7)

⁴⁶ Water supply was vital for the settlement, as provisions came only from the plain that lies afoot. Furthermore, textile manufacture must have been a rather important industry for the economy of Myrtos, as indicated by a variety of constructions within the settlement associated with it (Warren 1972, 262-3).

⁴⁷ It should be stressed that tritons were not used in the production of textiles; the purple dye was made from a different type of shell, the *murex*.

Activities important for the commonwealth of the community such as grinding and crushing grains are also evident in the building near Hala Sultan Tekke (ST.18) and the presence of the triton possibly indicates a sort of ritual involved (Åström & Reese 1990, 6). It can be conjectured that, here too, there is close association of the triton with fertility and prosperity and equivocally with the divinity itself. The performance of the triton at Hala Sultan Tekke may have been the result of the widespread connections that the site had with the Peloponnese, Cyclades and Crete (Åström 1986).

Presence of typical Minoan religious elements, such as the bucrania and the sacred groove, have also been observed at Kition, indicating deep cultural connections between Crete and Cyprus in the 12th century BC (Karageorghis & Demas 1985). In the case of Kition however, the idea of prosperity is not connected with food production and fertility but with the intensive metallurgical activities that took place in Rooms 12-16 which were also physically linked to the adjacent Temple 1 and Temenos A.⁴⁸ The importance of such activities in the Pre-Phoenician city of Kition is evident in the 13th century (Area I, floor IV, Room 30D-E) and more extensively in the 12th century (Area II, floors IIIA-III-II, northern and western workshops) when the areas of production are clearly associated with the temples. Although the east part of Room 12 was devoted to the working of metal as is indicated by the existence of furnaces, the west part incorporating Well 2, where triton ST.20 was deposited, bears evidence of ritual use as is suggested with the presence of bucrania, horns and scattered bones. After Well 2 was covered,⁴⁹ a small pit (pit I) was cut into the floor above the stomion of the well-head and a similar pit (pit H) filled with black ash was opened to the NW of pit I; the floor between the two pits was heavily burned and covered with ash and the area has

⁴⁸ According to the excavators of Kition, the sources of Kition's wealth must have been 'industry' and commerce rather than agriculture (Karageorghis & Demas 1985(i), 280). Triton fragments have also been collected from Temple 2, floor III (Reese 1985, 341). A connection between bronze smiths and the cult area has been suggested for Phylakopi, as objects related to bronze casting have been dedicated to the East Shrine; in this case the metalworking activities were taking place in a separate area (Renfrew 1985, 388).

⁴⁹ Reese 1985, 541 associates the well with floor I dated at the beginning of CGI (1050-1000 BC) but this is not correct as the pithos that formed the well-head was found collapsed into the upper fill of the well and covered by floor III. The well was first built for floor IV (LCII:C, 13th century) and it was probably used for the watering of a sacred garden belonging to the temple precinct (Karageorghis & Demas 1985(i), 31-2, 257-8); it remained in use for floor IIIA (LCIII:A1, first half of 12th century) within Room 12 when the area turned into a metal workshop, but was filled by the time of the construction of floor III (LCIII:A2, second half of 12th century) and was out of use for floors II and I (see Karageorghis & Demas 1985(i), 82, plan XXIX (for Room 12), pl. 52:2 (for Well 2)).

been interpreted as an hearth due to the abundance of ash, bones and burned sherds (Karageorghis & Demas 1985(i) 83, 116, plan XXIX). The excavators suggested that a religious ritual was taking place, especially because Room 12 had direct access into Temple 1.⁵⁰ We cannot be certain what the role of the triton in the ritual was, neither when exactly it was deposited in the well, but it seems reasonable to conjecture that this gesture ensured the sanctification of the well area due to its imminent covering by floor III; this would explain the subsequent placement of a hearth directly above the well.

Burials

Triton trumpets were used in association with burial rites taking place during or after the burial. Conch shells have been found in Bronze and Iron Age burial contexts, either in the broader cemetery area or the dromos of the tomb. This is the case of Lakkoudhes at Naxos (ST.23), Kastri at Kythera (ST.20), Pyla and Salamis at Cyprus (ST.15, 16).⁵¹ It is not clear whether another example from Peristeria at Messenia (ST.24) comes from within the tomb or from outside the entrance, where it could have been deposited at a post-burial ceremony. In any case, the archaeological evidence reveals that the triton trumpet was also perceived in the Aegean and Cyprus as an instrument with chthonic connotations. There is similar evidence from Neolithic Italy where the triton trumpets are often associated with human remains and in particular those of children (Skeates 1991, 28).

Crete offers a different picture; although triton shells are often found in Bronze Age Cretan tombs (Åstrom & Reese 1990), none of these is worked into a trumpet. Gesell, however, suggested that also in Crete there was a strong connection between the triton and chthonic rituals or burial practices; she associated the red pigment found on some natural and artificial tritons (ST.4, 5a; Baurain & Darcque 1983, 69-70, fig. 48; Reese 1990, 11) with the pigment marking the ritual equipment and the outside of the hearth in many sanctuaries, which she takes as substitute for and allusion to blood and the sacrifice (Gesell 1985, 11, 65-66).

⁵⁰ Other finds from Room 12 that indicate ritual use are wall bracket fragments, an ivory finial in the form of pomegranate and a bronze figurine with a simian-like face and outstretched arms (Karageorghis & Demas 1985(ii), 218 no. 898, pls. CLXIV, CCXXIV).

⁵¹ The remains of a platform in the Lakkoudhes cemetery (also featuring in other EC cemeteries) and the building of smaller platforms above individual graves suggest that indeed such rites were taking place within the cemetery area (Doumas 1977, 35-36, 74 ff.).

If we accept the establishment of the triton as a symbol of divine intervention ensuring prosperity and welfare, it is not surprising that we also find it in funerary contexts, as the same necessity for safety and well-being continues beyond death and permeates the deposition of burial offerings, especially those of talismanic character. In this sense, the triton may have also been endowed with magical powers to keep bad spirits away from the dead or from the participants during rituals.⁵² Such a quality might also be inferred from the literary association of blowing the triton with primordial chthonic forces: the 5th century BC religious practitioner Epimenides of Crete relates in his theogonic works that Aigokeros, a monstrous creature and companion of Zeus, invented the κόχλος with which the allies of Zeus were subsequently equipped and, by blowing it, they caused fear (πανικό) and made the Titans flee.⁵³ Later literary sources provide additional hints with regard to the ways that the association between death and conch shell might have been established. In Euripides' *Iphigenia Taurica* (303), Iphigenia says that she blows conchs which she collects dead from the beach; Athenaeus refers to the dead poet Theognis who is speaking with the voice of an already dead sea organism.⁵⁴ Tritons blowing conch shells was a common theme decorating Roman funerary monuments, possibly alluding to the journey of the dead over the sea to the island of the Blest. Furthermore, triton shells were sounded until recently to announce death by the shepherds who used the barren islets around Crete as their winter pasturage (Anoyanakis 1979, 202).

Other uses

This chthonic aspect of the triton trumpet is not remote from its usage as a safeguard or alarming device, which was noted until modern times. It is possible that it served similar

⁵² Jackson 1917, 35-6 reports that triton trumpets are used in Hindu temples to scare away evil spirits during worship and in Bengal the people resort to the protective powers of blowing the triton trumpet during earthquakes and similar fearful natural phenomena. Similarly the *cowrie* shell has served a double role, both in antiquity and in modern times, as symbol of fertility and as a talisman against the evil eye (Renfrew 1985, 326; Reese 1982, 139; Lloyd 1994).

⁵³ *Eratosthenes Catasterismi* 1.27.7 "...οὗτος δὲ δοκεῖ εὐρεῖν τὸν κόχλον, ἐν ᾧ τοὺς συμμάχους καθώπλισε, διὰ τὸ τοῦ ἤχου Πανικὸν καλούμενον, ὃ οἱ Τιτᾶνες ἔφυγον". The chthonic connotations and the deep, daunting sound of the conch shell that can be heard from afar may be responsible for its association with the Titanomachy. Due to these qualities it was also used as a war trumpet. A representation of the Nikosthenes painter dated at around 520 B.C. on a cup from Vulci (Castle Ashby no. 57) depicts a hoplite warrior blowing the conch shell next to a winged horse, a scene placed intriguingly between myth and reality (Paquette 1984, 82, T15).

⁵⁴ Athenaeus, *Deipnosophistae* 10.85.48-50 "ἤδη γὰρ με κέκληκε θαλάσσιος οἰκαδε νεκρός, τεθνηκώς ζωῶ φθεγγόμενος στόματι. σημαίνει γὰρ κόχλον".

purposes in the Minoan palaces, alongside with its cultic use. The triton from Hazor (Palestine) might have been used as a signalling device; it was found in a 9th century BC building interpreted as a Royal storehouse, and was recovered from an area with remains of household vessels where, according to the excavators, the storekeeper was based.⁵⁵ Even if the function of the triton in this case was strictly practical without direct cultic connotations, yet it is clear that such everyday usage was backed up by the strong religious background of the triton.

3.2.1.2 Iconography and motifs: Bronze Age

As already mentioned, Minoan triton replicas reproduce the morphological features and, in some cases, the internal structure of the natural tritons. Lloyd proposed that the replica from New York (Fig. 3.9b), which had a suspension hole, was carried as an amulet,⁵⁶ bearing prophylactic magical powers as a cult symbol of the deity and alluding to liquid offerings and the watery domain.⁵⁷ Apart from the skeuomorphs, various objects from Greece, Egypt and the Levant dating to the Bronze and the Iron Ages imitate shell shapes (Lloyd 1994, 82 ff. with references). In Minoan Crete, clay shells are attached on vases as plastic decoration (Detournay et al. 1980, figs. 170, 173-183; *PM* iv, 111) and, although tritons are not the most popular of all the marine motifs, there are quite a few naturalistic representations of triton shells on pottery and other materials.⁵⁸ Complete tritons, shown presumably in their natural environment, are depicted for example on MM:IB-MM:IIA clay seals from Phaistos (Figs. 3.10a, b).⁵⁹

⁵⁵ Yadin 1960, 6, 35, pls VI:3, CLXVI:11; Bayer 1963; Reese 1985, 361-2; Åstrom & Reese 1990, 11.

⁵⁶ Talismanic use of complete shells is known from Egypt during the Middle and New Kingdom; similar use has been suggested for the MM Cretan seals with shell representations (Lloyd 1994, 88).

⁵⁷ The recovery of some triton trumpets from wells, that we have discussed, may be suggestive of a water cult. In later Greek and Roman representations conch shell trumpets are usually played by Tritons, the *par excellence* creatures of the water, but we lack similar iconographic evidence from the LBA or the EIA.

⁵⁸ For a discussion on the details of the representation of various species see Gill 1985. On the triton she notes that "It would appear that Minoan lapidaries combined features of the triton with the clearly defined whorls and elegant form of another large shell, *Ranella gigantea*. On seals, likewise, the craftsmen probably intended to depict the triton but for aesthetic reasons preferred to reproduce the more distinctive profile of the *Ranella*" (Gill 1985, 79).

⁵⁹ *CMS* II.5 nos. 304, 305 and 306; Karali 1999, 60, 121 fig. 37B, 122, fig. 38.

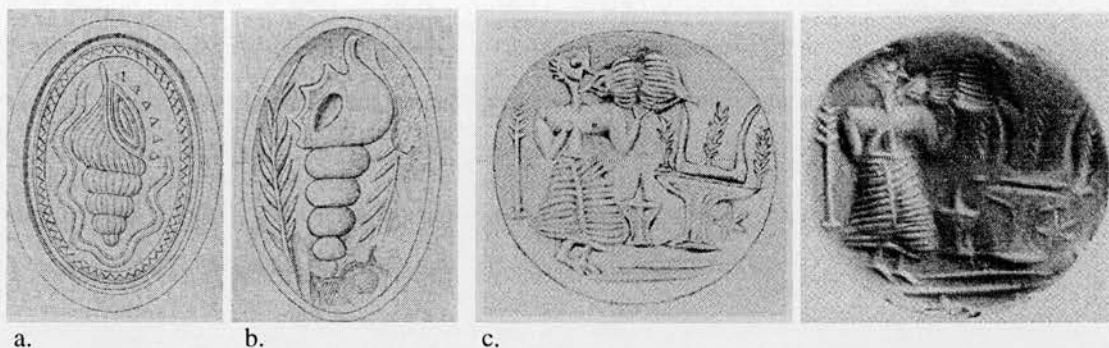


Fig. 3.10: a, b) Clay seals from Phaistos showing tritons (after *CMS* II.5, no. 304 and 305 respectively). c) Rock crystal seal from the Idaean Cave with female holding a triton (after *CSM* II.3, no. 7).

A LM:I-LM:III rock crystal seal from the Idaean Cave shows the triton being held by a female or a young girl standing in front of an altar with horns of consecration and branches (Fig. 3.10c).⁶⁰ This representation exemplifies the cultic associations of the triton. Evans interpreted the figure as a priestess blowing the conch shell (*PM* i, 221-2; *PM* iv, 210, 344); he was followed by Aign, Gesell and Younger. Other scholars, though, suggested that the figure is pouring libations to the altar, based on the argument that the apex of the triton is not cut off and it is depicted clearly passing beyond the girl's mouth (Baurain & Darcque 1985, 55). In the corpus of the surviving natural tritons with modified apex that could have been used as trumpets, there is at least one example from Myrtos (ST.5c) pierced laterally instead of having an open apex, which would be side-blown (if indeed it was a trumpet).⁶¹ In this context, the triton on the seal from the Idaean Cave could be interpreted as a trumpet. However, the lack of comparative iconographic material makes it difficult to propagate this view.

3.2.1.3 Iconography and motifs: Iron Age

Although it is likely that the *salpinx* was more widely used as a means of summoning people during the 1st millennium BC, the numerous literary references to the *kochlos* indicate that it did not cease to exist as a sounding device and its significance as religious symbol is reflected on the fact that it was played by sea deities such as Tritons and Nereids (*West* 121). Two bronze figurines dated at the late 8th century BC may represent triton trumpet players

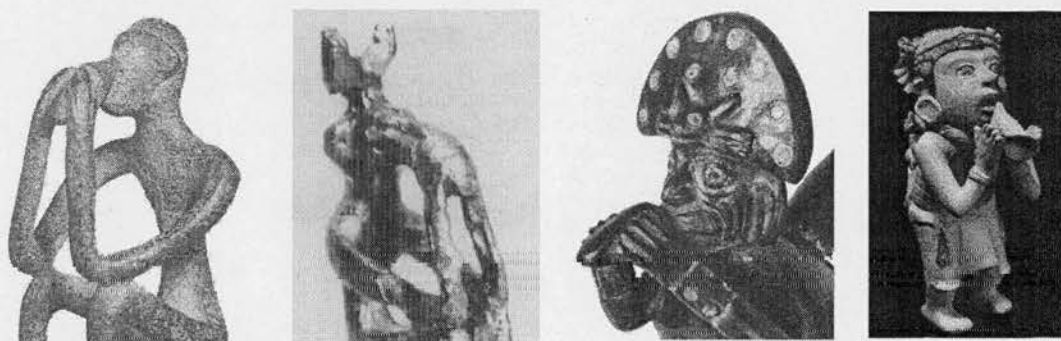
⁶⁰ *CSM* II.3, no. 7; *PM* iv, 210 fig. 162, 344 fig. 288; *Aign* 49, II/14, Abb. 19; Baurain & Darcque 1983, 55, fig. 35; Younger 1988, 129, 251, fig. 98; *Aegean* 37, 77, cat 61, pl. 24.4.

⁶¹ Warren 1972, 13, 321, 324; the authenticity of the lateral hole has been disputed by Karali (1999, 23).

(Fig. 3.11): their iconography is different from that of the LBA seal from the Idaean Cave and from the Classical representations of sea creatures blowing tritons.

(MF) 149) **Seated male with shell trumpet.** Walters Art Gallery, Baltimore, Inv. No. 54.789. Allegedly from Alpheios Valley, Elis. Context unknown.

151) **Seated simian with shell trumpet.** *ArhMRhodes*. Kameiros exc. no. 14384. From Kameiros, votive deposit.



Cat. 149

Cat. 151

a.

b.

Fig.3.11: EIA triton trumpet players. Cat. 149, 151. a) Daemon with triton trumpet from Peru, Mochica-Culture. Ca. 200-400 AD. b) Clay figurine of a triton trumpet player from Mexico, ca. 600 AD (after Marti 1970, 154 fig. 133 and 90 fig. 75 respectively).

Cat. 149 holds with both hands an oblong, diamond-shaped object with pointed ends. A transverse ridge marks the widest part of the object roughly at mid-length. The object has been interpreted as a conch-shell trumpet first by Aign (*Aign* 88) and more recently by Floren and Fuchs (1987, 58). The ambiguity of its shape and the fact that its upper tip end does not point directly into the mouth but rather touches the nose have also elicited other interpretations such as drinking from a flask or sniffing a bud (Schweitzer 1971, 160; Langdon 1993, 206). Neither of these explanations, however, does more justice to the shape of the object and the way it is positioned. Although sniffing a flower is a very common Near Eastern motif that is adopted by Greek and Cypriot potter painters, it is only the *holding* of a flower that has found its way to three-dimensional representations; the modelling of the object on Cat. 149 would be a very unsatisfactory attempt to render a flower when we compare it with the painted or sculpted flower buds with triangular shape that are smaller and more delicate.⁶² Furthermore, although the action depicted on Cat. 149 may physically

⁶² This gesture is most commonly associated with females; for the motif of the flower smelling man see Böhm (forthcoming).

resemble to that of drinking, it should be taken into account that bringing a vessel to the mouth has no parallel in the Aegean and the Near Eastern iconography, where cups and stemmed vases (not flasks) are usually held in a semi-raised hand, a fact that hinders such an interpretation for Cat. 149. On the other hand, the length of the object, which is estimated between 0.26-0.30,⁶³ is comparable to the length attained by the *Charonia*, the shell species of the Mediterranean more often selected for fashioning a trumpet. The degree of misplacement of the object is minimal and possibly due to the demanding position of the arms; it can be compared with the similar inability to place accurately the pipes on the face of the bronze from Orthia (Cat.153). The elongated, lenticular object seen on Cat. 151 from Kameiros has a flattened tip defined by a shallow groove, but its overall appearance is less articulated than that of Cat. 149; however, it is embraced by both palms in exactly the same manner and brought accurately at the level of the mouth. Its length is 1/5-1/6 of the full body size of the simian figure, a ratio similar to that of Cat. 149.

The shape and position of the objects seen on Cat. 149 and 151 is also encountered on three-dimensional representations of shell trumpet players from Peru and Mexico dated to the first half of the 1st millennium AD, which unmistakably play end-blown tritons with a cut off apex (Fig. 3.11a, b).⁶⁴ The physical aspect, the position of the objects seen on Cat. 149 and 151, as well as the ethnographic iconographic comparisons, make the interpretation of the Greek representations from Kameiros and Alpheios Valley as triton players very plausible. The iconographic representations provide additional evidence to the sporadic remains of possible Iron Age triton trumpets coming from the heroic burial at Tomb 79 at Cyprus (ST.19), from a well in the Agora at Athens (ST.1), from a residential deposit at Vroulia (ST.24) and from Corinth (ST.2, unknown context). It can therefore be surmised that blowing the conch-shell for summoning people or during funerary ceremonies was still practiced during the EIA in the Aegean and Cyprus.⁶⁵

⁶³ The length of the object has been estimated in proportion to the full size of the body of the figure (ratio 1/6), with an average 1.70 taken for the latter.

⁶⁴ For more Pre-Columbian representations of triton players in the Americas see Marti 1970.

⁶⁵ It is noteworthy that EIA Crete has not produced triton trumpets; only unmodified triton shells or triton remains are found in cult and burial contexts at Subminoan/Protogeometric Karphi (Bench Sanctuary), Protogeometric Kommos (Temple A), Praisos (Tomb A, geometric fill) and Geometric Vrokastro (Gesell 1985, 59, 79; Reese 1985, 358-9; 1990, 9-10).

In comparison with the representation on the Idaean Cave seal, it is evident that the EIA iconography follows a completely different trend from that of the LBA. This is a new iconographic type of a seated male or simian playing the shell trumpet rather than a young female standing near an altar.⁶⁶ However, the symbolism of such an image is not far from the LBA cultic significance of the triton that we have so far outlined as a fertility/divinity/chthonic symbol with prophylactic powers. The schematic seated male (Cat. 149) with elongated limbs and elbows on the knees, triangular torso and summary features which evolved according to the pre-requisites of LG bronze sculpture, has been shown to have close connections with the monkey representations which served as fertility symbols in the Near East and Egypt and were also introduced to the Aegean in the Bronze Age (Langdon 1990, 416 ff; 1993).⁶⁷ Furthermore, in Near Eastern iconography simians are very often depicted in this posture, seated or squatting and often playing the *aulos*.⁶⁸ Triton playing is primarily a Mediterranean custom that was not practiced in the Near East, as it has already been noted.

For a simian or a simian-like male to be given a shell trumpet, which replaces the usual single or double *aulos*, despite the lack of such iconographic tradition in both the Aegean and the Near East, the following prerequisites are essential: a) that both elements of the new type and their meaning are known to the local culture that produced the image, either by way of

⁶⁶ Some scholars have proposed that the figure on the seal from the Idaean Cave is a male (see bibliography on *CMS II.3* no. 7); contra Younger (*Aegean* 77). The EIA representation of a male shell trumpeter from Alpheios would corroborate to this view. However, the majority of Minoan cultic scenes depict women and the gender of the figure on the seal certainly can not be determined on the basis of later iconographic evidence. This differentiation in gender could equally indicate changes in the ceremonial procedures, the introduction of new artistic motifs and trends, or that it is just possible for triton trumpets to be played by males as well as females in the right context (a fact that can also be deduced from the literary references).

⁶⁷ Langdon 1990 discusses this issue in detail. To summarise a few of her points, monkeys and especially baboons were associated with Thoth in Egypt, healer and overseer of justice in the Underworld. Their representation symbolised fertility, regeneration, eroticism, and they were also endowed with protective magic powers. In Mesopotamia and the Levant the simian motif in art began in the 4th millennium and it retained similar symbolism. Both the actual animal and its iconographic symbolism were known in Minoan Crete, most probably via Egypt and the Near East, and monkeys were a favourite artistic motif, whereas the Mycenaeans did not include it in their repertoire. It only became popular in Mainland Greece in the 8th century and by the 6th century simian-like figures were deposited in sanctuaries and graves; North Syrian and Phoenician contacts have played an important role in the transmission of the motif and its significance in Greece as well as in Italy and Sardinia in the first millennium. In Phoenician art the simian is usually associated with Bes or ancient images of the fertility goddess holding her breasts.

⁶⁸ For monkeys playing the *aulos* see Spycket 1998, figs. 1, 3, 5, 9 (cylinder seals from Nimrud and Ur), fig. 11 (terracotta from Larsa) and fig. 20 (representation on a Sasanian bronze bowl).

tradition or through transmission; b) that the new combination served a purpose and expressed successfully an idea; c) that there is a great degree of artistic freedom and experimentation allowing the already existing imagery to be enriched by the visual impression of real life experiences and practices. The conception of the novel iconographic type of a seated simian-like shell trumpeter illustrates how artistic motifs are created in order to reflect existing religious practices and symbolism. In this case, an old Aegean custom and a relevant iconographic motif from the Near Eastern repertoire are combined to convey similar or complimentary ideas of fertility; this might as well indicate that a fusion of beliefs and cult practices took place among peoples of different cultures as a result of close contacts or co-habitation in certain areas.

The exchanges and interrelations among Cyprus, Rhodes and the Levant (North Syria and Phoenicia) have long been recognised⁶⁹ and are crucial for our discussion of the new EIA iconographic type, resulting to the unprecedented combination of the conch shell, a traditional symbol in Aegean cult practices, with the common Egyptian and Near Eastern fertility symbol of the simian, as it was recovered from Kameiros in Rhodes (Cat. 151). The Rhodian ports of Kameiros and Lindos, being near Cyprus and on the Phoenician trade roots, have played an important role in the extended distribution of the simian motif in the EIA Aegean and many Egyptianizing objects with simian imagery were products of the local industry (Langdon 1990, 418; Webb 1978, 5 ff). Kameiros has also yielded another bronze simian playing the double *aulos* (Cat.152) as well as many squatting monkey figurines in faience (Webb 1978). In addition, among other Rhodian goods produced in the 7th and 6th centuries are perfume bottles with shell shaped bodies (Lloyd 1994, 82, n. 34 with further references), apparently appreciated for both their appealing shape and symbolic connotations as they were inherited from the long Bronze Age tradition.

The Kameiros bronze simian (Cat.151) can be placed comfortably in an East Greek cultural context boosted by Cypriote and Near Eastern contacts. In the Mainland Greece, through, the appearance of the simian or simian-like motif is quite a novelty. Furthermore, there is less evidence altogether for the use of triton trumpets both in the LBA and the EIA Mainland

⁶⁹ Blinkenberg 1931; Benzi 1992; Hermay 1998; Karantzali 1998; essays in Karageorghis & Stampolidis 1998.

Greece (ST.1, 2, 20, 22, 24), although the examples from Methana (ST.22) and Peristeria (ST.24), that come from sanctuary and burial contexts respectively, indicate the religious symbolism of the instrument in the Peloponnese since the Mycenaean period.⁷⁰ Langdon has argued for a Laconian manufacture of the bronze figure from Alpheios (Cat.149) on the grounds of stylistic details and its iconographic connection with the similar bronze aulos player from Artemis Orthia;⁷¹ local inspiration, however, cannot be disassociated from the context of cultural and artistic influences from the Dodecanese and Cyprus.

The bronzes from Alpheios Valley and Kameiros belong stylistically and iconographically to a contemporary series of bronze figurines, mainly of Peloponnesian manufacture, with similar posture and workmanship, usually holding pipes towards the mouth, that are deposited in Greek sanctuaries (Cat. 150, 152, 153, 170 and possibly 177); one related example is thought to come from Thessaly or North Greece (Cat. 176). These bronze figurines are associated with a type of bronze belt pendants which retain the seated figure on top of a rod covered with knobs (Kilian-Dirlmeier 1979, 194 ff; Langdon 1993, nos. 32, 54; 1990, 413 ff).⁷² The belt pendants are widely distributed in Thessaly, Macedonia and Albania (Kilian-Dirlmeier 1979, pls. 102, 107). The examples from datable contexts date at ca. 700 but “a lifespan going well into the 6th and possibly the 5th century has been demonstrated” (Langdon 1990, 415). Usually deposited in graves in Northern Greece and later in sanctuaries, they are considered to be amulets with prophylactic powers, because in many cases the rod is broken off but the figures were still preserved and deposited in the burial.⁷³

⁷⁰ Note also the presence of triton trumpets at the Mycenaean sanctuary at Phylakopi (ST.21). Triton shells have also been recovered from Lerna (Reese 1985, 360) and 12 unmodified *Charoniae* were found at a LH:I house at Traganas, near the palace at Pylos (Karali 1999, 24). Contra Åström 1990, 6, who suggested that the lack of tritons from the majority of mainland sanctuaries is evidence of the difference between Minoan and Mycenaean religion.

⁷¹ Compare also with the seated *syrinx* player (Cat.177) that is thought to have come from Arcadia.

⁷² Over 120 such pendants have been catalogued by Kilian-Dirlmeier, but unfortunately just half of them have a known provenance and even less come from datable contexts; therefore it is not certain whether their stylistic range from relative naturalism to flattened, angular and abstract treatment reflects a stylistic evolution.

⁷³ Harness decoration, pin heads, jug stoppers and weaving weights are other proposed usages for these objects, but the fact that two pendants were found in a female burial attached to the chain of a belt advocates for their function as belt pendants with amuletic significance (Kilian-Dirlmeier 1979, 205, nos. 1183 and 1290).

It is not easy to decide neither between a simian and human nature of these bronze sitters nor whether they hold an instrument in their hands or not, as in most cases they are rendered with the least possible details. Kilian-Dirlmeier argued for their indisputable human nature due to detailed incisions at the back of the head that she interprets as hair, as well as the fine cross-incisions at the back indicating a belt in the same way that it is observed on many terracotta figurines. Their squatting posture though is very common in the representation of simians in Egypt and the Near East and Kilian-Dirlmeier herself accepted that this element (posture) might be more crucial for the identification and significance of the figures rather than the object they hold or other representational details (Kilian-Dirlmeier 1979, 206).

The iconographic connection between the two groups, the bronze figurines and the rod belt pendants, is so conspicuous that Schweitzer claimed the Alpheios trumpeter to be the prototype that the pendants are copying (Schweitzer 1971, 161). Kilian-Dirlmeier's catalogue no. 1301 from Macedonia⁷⁴ is closely comparable to the shell trumpeters from Alpheios and Kameiros, as it is holding towards the mouth a clearly delineated bulbous object that finishes in a pointed tip at the mouth end (Fig. 3.12a; Kilian-Dirlmeier 1979, 204, pl. 73). Similar treatment characterizes her catalogue nos. 1178⁷⁵ of unknown provenance and 1179⁷⁶ from Chalkidike (Fig. 3.12b; Kilian-Dirlmeier 1979, 196, pl. 63).

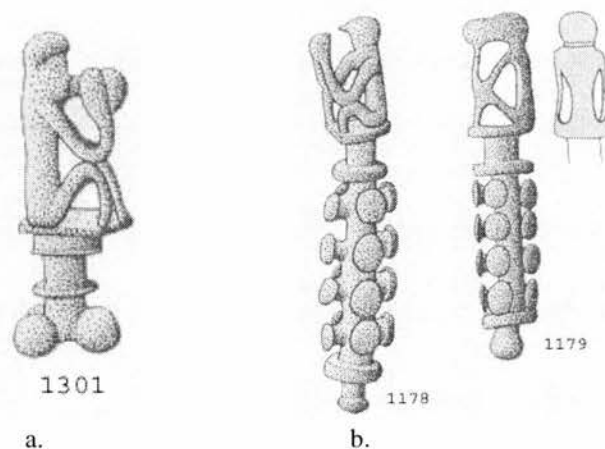


Fig. 3.12: Bronze belt pendants. a) From S.R. Macedonia (after Kilian-Dirlmeier 1979, pl. 73: 1301). b) Unknown provenance and Chalkidike (after Kilian-Dirlmeier 1979, pl. 33: 1178 and 1179).

⁷⁴ Found between Prilep and Bitola. National Museum of Belgrad no. 13216

⁷⁵ Private collection.

⁷⁶ Possibly from a grave. Athens, Benaki Museum Inv. No. 8023

The rest of the examples present a much less defined modelling of the hands and face and the object is often, but not always, distinguishable. Nos. 1168⁷⁷, 1175⁷⁸ and 1180⁷⁹ of unknown provenance, 1169⁸⁰ from Dodone, 1177⁸¹ from Chalkidike, and 1184⁸² from Peloponnese seem to form a group that has a thin, pointed muzzle and the hands hold a rather small and rounded object at its tip (Fig. 3.13a; Kilian 1979, 195-6, pls. 62, 63). On the other hand, nos. 1174,⁸³ 1182⁸⁴ and 1193⁸⁵ of unknown provenance, 1181⁸⁶ from Pherai, and 1183 and 1192 from Kuç i Zi⁸⁷ form another group (Fig. 3.13b) where the bulbous object is uniform with the muzzle and extends beyond the palms, in a manner that recalls the Kameiros bronze (Kilian 1979, 195-197, pls. 62, 63, 64).

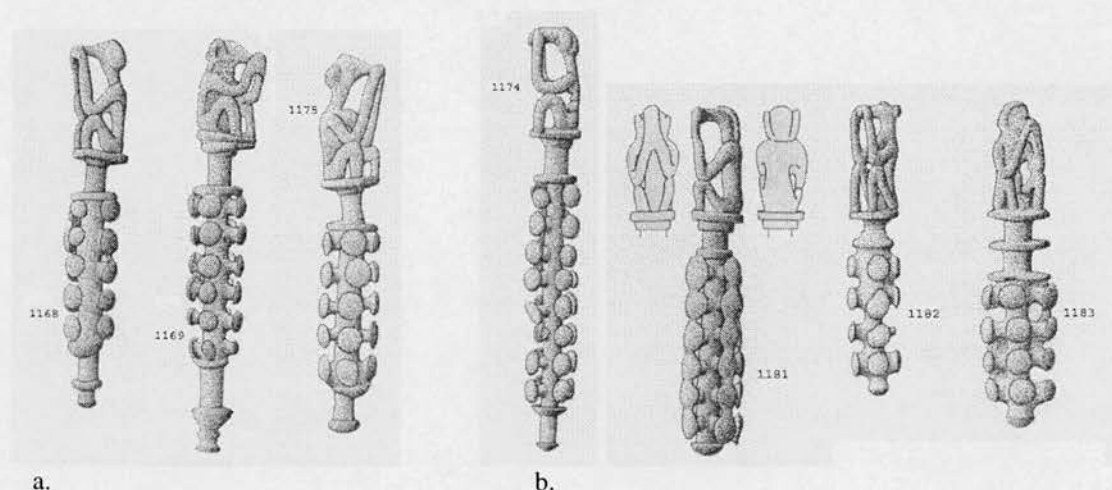


Fig. 3.13: Bronze belt pendants. a) Holding object at the end of the muzzle (after Kilian-Dirlmeier 1979, pls. 62-3: 1168, 1169, 1175). b) Holding the muzzle (after Kilian-Dirlmeier 1979, pls. 62-64: 1174, 1181-3).

Although it would be far fetching to propose that all the pendant examples mentioned here represent shell trumpeters,⁸⁸ it is important to underline their variation within the genre of

⁷⁷ Unknown provenance. Ny Carlsberg Glyptotek (Inv. No. unknown).

⁷⁸ Unknown provenance. Kopenhagen, Ny Carlsberg Glyptotek (Inv. No. unknown).

⁷⁹ Unknown provenance. Staatlichen Kunstsammlungen Kassel Br. 710.

⁸⁰ Ausstellung Arch. Inst. Univ. Zürich 1974, 127 ff, fig. 50.

⁸¹ Possibly from a grave. *NM*, Stathatos Collection No. 80.

⁸² *AM* 1936.608.

⁸³ Baltimore, Walters Art Gallery 54.2473; Langdon 1990, 112 no 32.

⁸⁴ Unknown provenance, private collection.

⁸⁵ Unknown provenance, Cambridge, Fitzwilliam Museum GR 4/1922).

⁸⁶ From the shrine of Artemis Enodia. *NMA* 16706

⁸⁷ 1183 from Tomb 14, ithyphallic. 1192 from a tomb. Both at Tirana Museum (Inv. No. unknown).

⁸⁸ Langdon 1990, 113 suggested that the iconographic type of the rod pendants was inspired by the eating posture of the simian (enhancing the idea of fertility) and proposed the idea of nourishment as their underlying symbolism. This is an important point supported by a number of Near Eastern, Egyptian and Cypriot figurines that are clearly depicting simians or simian-like figures eating a fruit

rod pendants and in particular to point out the iconographic connection between nos. 1301, 1178 and 1179 (Fig. 3.12a, b), which clearly stand out from the rest of the figures, to the Alpheios and Kameiros bronzes. The conch shell trumpeter with a simian posture would seem appropriate to accompany the deceased as both a regeneration symbol and a voice from the underworld, an idea that we have traced in later Greek literary sources. The long tradition of using tritons in religious and funerary rituals that is attested in the Bronze Age and continues in the Iron Age makes such connection possible and thus the choice of this particular iconographic type can be better understood.⁸⁹

The EIA combination of a simian and a simian-like creature blowing the conch shell emphasise the symbolic significance of the triton as a fertility and/or regeneration symbol, a fact that is also corroborated by the and the ithyphallicism of the Alpheios bronze (Cat. 149). As such the conch shell later became associated with Aphrodite and in the Classical period it was often dedicated to Aphrodite of Knidos (Lloyd 1994, 87); from the 4th century onwards the birth of Aphrodite in a shell becomes a frequent theme in coroplastic and vase painting (*LIMC* 2.II, 1011-13, 1015, 1017, 1083-5). The chthonic connotations of the conch shell that have been traced during the LBA are also exemplified in the EIA with the burial deposition of the bronze pendants that we have discussed; literary sources connecting the triton trumpet with the titanomachy reveal that its fearsome character is embedded in the mythical past. The two aspects of triton playing, signifying both life and death, complement each other; the LBA associations of triton playing are represented in the EIA in a completely innovative fashion, with the simian-like shell trumpeter motif forged under the influence of cultural contacts with the east, a motif that nevertheless was short lived, unlike its underlying meaning.

(see Greek examples in Walker 1996, 67-8, nos. III: 94, 95); however, the idea of nutrition should not be dismissed altogether. It is possible that the rod pendant figurines had more than one sources of inspiration; the iconographic type of baboons touching their muzzle with both hands is another associated posture noted by Langdon (1990, 417, fig. 14; see also Walker 1996, 62, 114, III: 89, 95).

⁸⁹ Triton trumpets are not known so far from Northern Greece, but we have already mentioned that they are attested in Southern and Central Europe. Tritons made into vases or unmodified are known from Kastri at Thasos and Molyvopyrgo at Northern Greece (Reese 1985, 361; Karali 1999, Table 2).

3.2.2 Trumpet

The earliest representations of trumpet playing come from Sumeria; gold and silver trumpets were found in Iran (Tepe Hissar), dated to the 2nd millennium BC (Duchesne-Guillemin 1980-1, 291, pls. 42, 48). In Egypt they are represented since the 15th century BC, played in military scenes and in various festivals. The high pitches of trumpet would easily be heard in the chaos of battle, whereas blowing the trumpet for Osiris, the King of the Dead, was a ritual act that would aid to the resurrection of the deceased; therefore, bronze and silver trumpets were deposited at the tomb of Tutankhamun (Manniche 1991, 58, 70-2, 75 ff; *MiB-Ägypten* 120, fig. 88). A trumpet of Levantine origin in the form of a ram's horn carved from a hippopotamus incisor comes from the 14th century BC Ulu-Burun shipwreck (Pulak 1997, 245, fig.14). In Mesopotamia and the Syro-Phoenician coast there are very few representations of the instrument (Braun 1997, 75).

The surviving Greek and Cypriote trumpets date from the Classical period onwards (SA.1-6); those that come from a known context were deposited in a tomb (SA.2, 5). They were made of bronze (SA.5), bronze and ivory (SA.6) or clay (SA.1-4). According to Pollux, bronze trumpets had bone mouthpieces (*Onomasticon* 4.85), and such a mouthpiece is preserved on SA.5.⁹⁰ The terracotta trumpets come from Cyprus and may have been models for metal prototypes, although SA.1 and 3 can be sounded (personal examination). Many fragments of similar clay trumpets have also been found at the sanctuary of Salamis in Cyprus, where they would have been used for signalling the commencement and the phases of the ceremonies (Chavane 1975). The morphology of Greek and Cypriote trumpets presents two variations (there are parallels for both types in Egypt and the Near East):

(a) Long tubular body with a marked transition from a slightly conical tube to a short bell (SA.1, 4). The section of SA.1 is shown in Fig. 3.14a.

(b) Usually shorter, slender body in which the tube gradually splays out into a bell (SA.3, 5, 6). The section of SA.3 is shown in Fig. 3.14b.

Type (a) is depicted in military scenes in Greece and in the Greek colonies in South Italy from the 7th century onwards (Paquette 1984, 74 ff., T1-14, T16), presenting a very long tubular body ending in a short bell (Fig. 3.14d). Type (b) is played by a bronze male figure

⁹⁰ This was not a vibrating mouthpiece like that of the reedpipes, as it is interpreted by Bélis 1986a, but a cup mouthpiece that would primarily protect the metal mouth end from wear and corrosion. The mouthpiece also influences the sounding potential of the trumpet, allowing for the production of different harmonics (Bate 1966, 90; Holmes 1987, 56 ff; Mathiesen 1999, 232). For a discussion on the range of the intervals and the musical character of the signals played by Greek trumpets see Bélis 1984a.

from Mylasa in Caria wearing a “Hittite” pointed cup (Fig. 3.14c); the context of this figure is unknown, but its style suggests a date to the early 1st millennium (Hanfmann 1962, 3 n. 26). The pointed cup indicates that the Carian figure was probably a soldier. A similar soldier wearing pointed cap and blowing a type (b) trumpet is shown on a South Italian Late Classical vase painting (*Behn* 118, pl. 66: 153).

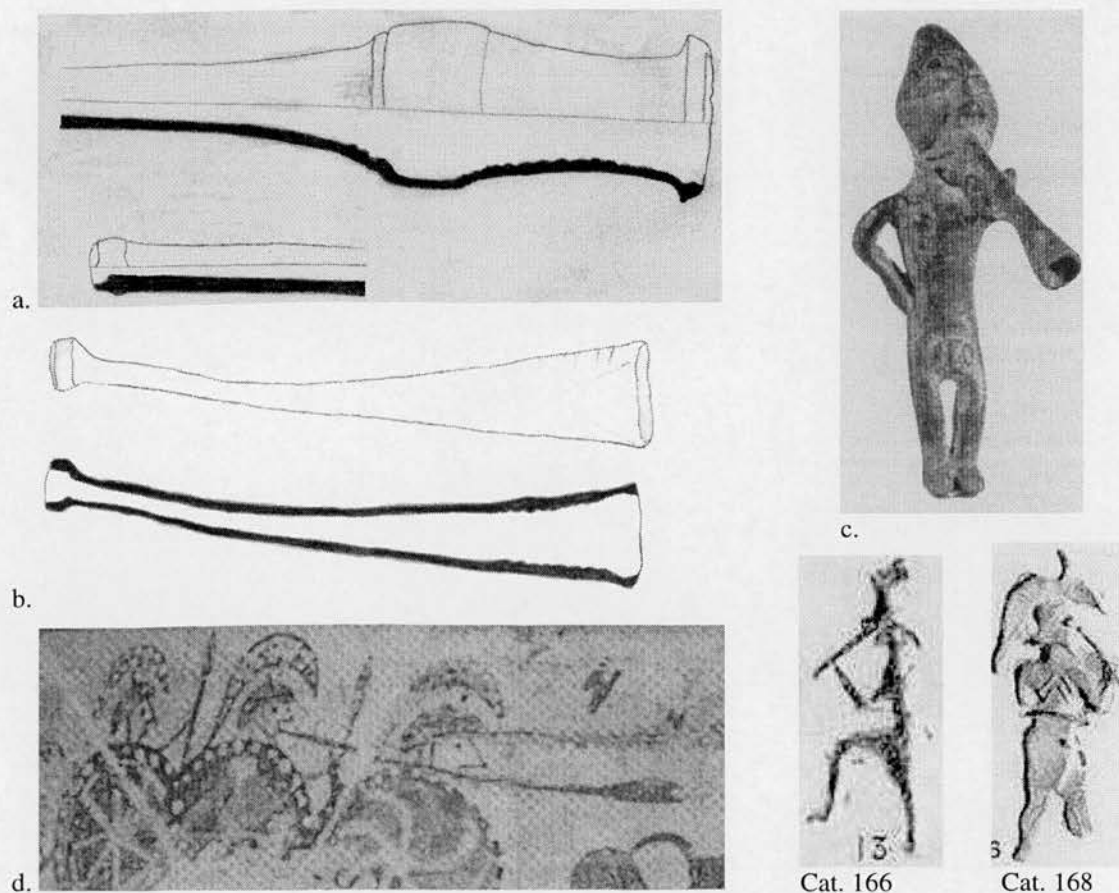


Fig. 3.14: Trumpets. a, b) Sections of SA.1 and SA.3 (drawings by author, not in scale). c) Trumpeter from Mylasa (*BM* Inv. No. 130909). d) Krater by Aristonothos. Rome, Capitoline Museum Inv. No. 172. 7th century BC (photo by author). Cat. 166 and 168.

It is possible that similar type (b) trumpets are played by the lead helmeted warriors, which were deposited at the Spartan sanctuaries of Artemis Orthia (Cat. 168) and Menelaion (Cat. 169) from the 7th century onwards (Fig. 3.14):

- (MV) 166) Votive plaque, comast? trumpet player. (pl. 17). From Sparta, Artemis Orthia Sanctuary.
- 168) Votive plaque, warrior trumpet player. From Sparta, Artemis Orthia Sanctuary.
- 169) Votive plaque, warrior trumpet player. From Sparta, Menelaion.

These have been described as *auloi* players, but supporting a single pipe with one hand is better understood in connection with trumpet playing rather than *aulos* playing, as the latter required both hands to cover the finger holes. As the one-hand position is shown in all representations of trumpeters (see Figs. 3.14 c and d for instance), the Laconian lead votives, and especially those that represent helmeted soldiers (Cat. 168, 169), may also be interpreted as blowing a trumpet. However, on the Laconian lead figures the pipes are cylindrical and plain, lacking the bell-shaped end which is characteristic of the trumpet. It could be argued that the smooth conical outline of SA.3 (Fig. 3.14b), also seen on the trumpeter from Mylasa (Fig. 3.14c) and on the similar South Italian representation, would be difficult to represent in mass produced artefacts of such a small scale like the lead votive figures from Sparta; the latter may therefore opt for a simplified rendering of the instrument while still showing the typical trumpet playing technique. In Sparta, the trumpet is played not only by lead soldiers (Cat. 168), but also by lead comasts (Cat. 166) that hold it in a similar manner. The comasts wear the *phorbeia*, a strap that secured the instrument into place, allowed more flexibility to the player's hands and provided sustained pressure on the lips and cheeks.⁹¹ The Laconian comast trumpeters indicate the use of type (b) trumpets in festive celebrations.

Another type of lead votives from Artemis Orthia Sanctuary may depict comast trumpet players, but the modelling of the instrument is ambiguous (Fig. 3.15):

(MV)	162)	Votive plaque, comast? wind player. Sparta Museum. From Artemis Orthia Sanctuary, Sparta. Lead (I) and (II).
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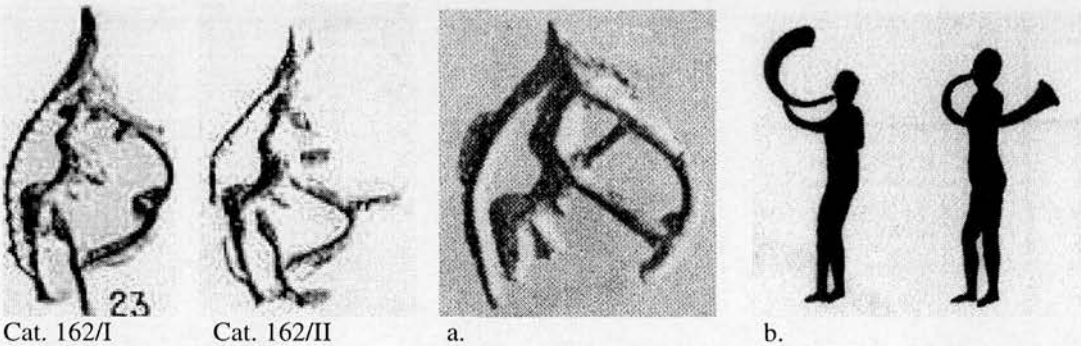


Fig. 3.15: Cat. 162. a) Lead votive from Artemis Orthia Sanctuary. Lead III-IV (after Dawkins 1929, pl. CXCVI:23). b) Bronze Age lurs shown on a rock carving from Kivik, Sweden (after Behn pl. 4: 7).

The figures have been described by their excavators as *auloi* players, or a type allied to that

⁹¹ For a discussion on the *phorbeia* in connection with both *aulos* and trumpet playing see B  lis 1986b.

of lead musicians playing some sort of wind instrument (Wace, Thompson & Giles 1908-9, 137; Dawkins 1929, 262, 276). Instead of a straight tube, the figures hold a curved object that reaches the level of the lower body; the left hand seems to hold it near the mouth, and the right hand to support its lower part, which was probably brought across the body. Although one end of the object is clearly brought to the mouth (Cat. 162/I), it cannot be ascertained that it is a wind instrument and not the remains of the casting from the mould. The type is also found with the Lead III and IV series (6th century BC) in both the Menelaion and the Artemis Orthia sanctuaries, and shows the two hands holding a tubular object in this manner (Fig. 3.15a). If indeed an instrument is intended, the only comparable examples of curved trumpets would be the bronze lures that were played in Europe since the Bronze Age and are known from various representations (Holmes 1987). These are usually shown held in vertical plane, with the bell pointing to the sky (Fig. 3.15a left),⁹² but there is one instance that shows the instrument being held in horizontal plane (Fig. 3.15a right), a position that, according to Holmes, is more comfortable in playing (Holmes 1987, 73).

Ethnographic comparisons reveal an interesting visual parallel to Cat.162; primitive trumpets played by Eastern African tribes consist of a curved tube made of bamboo or the root of a tree, which is held in a horizontal plane and reaches the lower body (Kubik et al. 1982). Furthermore, the modern midwinterhoorn that is still played in the Netherlands has a similar curved body and is held across the body of the player, with one hand near the mouth and the other supporting the lower part (Fig. 3.16). The unclear rendering of the lead votive from Sparta and the lack of comparative evidence from Greece, however, make highly speculative the identification of the object on Cat.162 with a similar trumpet.



Fig. 3.16: Midwinterhoorn player, Twente, Netherlands. Ca. 1950 AD (after Musical Instruments Museum Guide, 45, fig. 30).

⁹² For such rock carvings see *Behn* pl. 4: 8 and Holmes 1987, 72, fig. 10; for similar examples from the Hallstatt period see Eibner 1987, 282-4, pls.7: 3, 5. The related Roman *cornu* is also held in vertical plane when played (*MiB-EtrurienRom*, 54, 64, figs. 25, 33).

3.3 End-blown aerophones

3.3.0 Classification and terminology

Musicologists agree that the earliest types of wind instruments proper (aerophones with tubular body) to appear were end-blown and lip-blown instruments (flutes and trumpets), which did not require a reed in order to be sounded. They also believe that whistle flutes are earlier than vertical and transverse flutes (*History* 44, Baines 1957, 174; *Survey* 553).⁹³ These views are supported by the archaeological record and the worldwide distribution of various types of flutes made of animal and bird bones.⁹⁴ Bone or clay whistles have been discovered in Palaeolithic and Neolithic contexts from Europe (Megaw 1960 with references; 1961) and the Near East (Spycket 1972, 171 for a clay example); later examples are known from Canaan, dated from the 3rd millennium onwards (Braun 1997, 74).⁹⁵

In Greece, two bone phalanges pierced transversally were found at the Neolithic strata of Knossos in Crete and have been interpreted as bone whistles (AU.10; Evans 1964). Excavations have also shown that ductless flutes with notches are older than those without. A bone flute or whistle comes from the Acropolis of the Neolithic settlement at Sesklo (Thessaly); it is made of the tibia of a goat or sheep, with an oblique notch on one side and an ovoid finger hole opened on the wall of the tube (AU.25). The instrument could be played from both the notched and the flat end, thus producing at least four notes. Three more bone flutes have been unearthed at the Upper Neolithic settlement of Dispilio, Thessaly (Hourmouziadis 1996). One of them is presented in Appendix II (AU.16). It has a notch, four finger holes of different diameters opened at the lower end of the tube and a vent hole at the back side.

⁹³ In the whistle flute the upper end is stopped (usually with wood or resin) except for a narrow channel that directs the breath to the sharp edge of a hole cut on the side of the tube for this purpose. It can be with or without finger holes, whose number varies. In this category belong the earliest archaeological examples of wind instruments dated as early as the Upper Palaeolithic (Megaw 1960, 6 ff.). It is very similar to our modern whistle and produces a sharp sound.

⁹⁴ According to Sachs, "the more widely an object is spread over the world, the more primitive it is" (*History* 62).

⁹⁵ For a list of pre-historic European flutes see *NGDMM* s.v. "Europe, prehistoric". The earliest bone flute dated in the Middle Palaeolithic is discussed by Kunej & Turk 2000. See also Megaw 1984 for a bone flute from Penywyrldod in Wales dated at 4th millennium BC, with a brief discussion on prehistoric bone pipes from the British Isles.

Flutes are usually tubular and cylindrical⁹⁶ and can vary in length. The earliest flutes were made of bone and gradually other materials like horn, wood, bamboo and metal were employed worldwide. The pitch (fundamental) is determined by the length of the tube; the longer the tube, the lower the pitch. A stopped pipe will sound an octave lower than an unstopped (open) pipe of the same length, and will produce different harmonics (Baines 1957, 35).

Ductless flutes have greater musical potential than the whistle flutes by varying the angle of blowing against the edge. In the ductless flute the blow-hole can be formed simply by the upper opening of the pipe (end-blown flute) or can be cut laterally into the wall of the tube while the upper opening is stopped (side-blown flute). Of the two, end-blown flute is the older; it is also referred to as vertical flute because, when played, it rests against the chin or the lower lip and it is usually held vertically (although various angles can be employed according to the style of the upper rim). The vertical flute is first shown on a 4th millennium ceremonial stone palette from Hierakonpolis in Egypt, played by a fox (*MiB-Ägypten* 18, fig. 1).⁹⁷ The side-blown flute is also known as cross or transverse flute from the position in which it is held when played. It is first recorded in China in the 9th century BC but may be older (*Survey* 554); in the Mediterranean it is not attested pictorially and archaeologically before the Roman period.⁹⁸

The word σῦριγξ (*syrinx*) denotes a little whistle made of reed; therefore the reference to the μονοκάλαμος σῦριγξ (*monokalamos syrx*), meaning “single-reed syrx”, would denote a single flute with finger holes (*West* 113); whereas πολυκάλαμος σῦριγξ (*polukalamos syrx*) would refer to a group of reeds bound together, the panpipe.⁹⁹ As already noted, the panpipes are mentioned in the *Iliad* for the first time (*Il.*18.526) under the term σῦριγξ (*syrinx*), played by shepherds that decorated the shield of Achilles. The words *donax*, *kalamos*, *pektis* and *photix* are also used to describe end-blown instruments, but the

⁹⁶ Flutes made of bone sometimes have slightly tapered edges as they retain the original shape of the bone. The vessel or globular flute, where the tube is substituted by a vessel form with a blowhole, is found in pre-Dynastic Egypt and Bronze Age Hungary (*Survey* 596) but is not attested in Greece and Cyprus.

⁹⁷ In later Egyptian representations we see a variant of the ductless type held obliquely when played (pointing down and across the body), the so-called oblique flute, whose upper end was cut diagonally (*History* 90; Ziegler 1979, 92 no. 102; Manniche 1991, 24 fig. 11; *MiB-Ägypten* 24).

⁹⁸ See fragments of transverse flutes from Delos (AU.15); Bélis 1988, 236 fig. 2; Bodley 1946.

⁹⁹ For these terms see Athenaeus *Deipnosophistae* 4.82. The word *syrinx* had also additional meanings, indicating a speaker whole or a later invention of a special device of the *aulos* that alters its pitch (Howard 1893, 30 ff.; Landels 1960, 67, 129 ff.; *GMW i* 52 n. 17, 226; *West* 102) or the mouthpiece of an *aulos* (Mathiesen 1999, 222).

descriptions often overlap in meaning, and thus identification is difficult (Haas 1985, 30 ff.; West 1997a; *West* 109 ff.; Landels 1999, 69 ff.).

3.3.1 *Syrinx*

A set of vertical flutes usually made of reed, with or without duct, without finger holes and joined together, form the panpipes or *syrinx*; the tubes are usually stopped at different lengths and thus tuned to a scale.¹⁰⁰ In the Aegean the panpipe is depicted on three Early Cycladic II marble male figures (Fig. 3.17a; Haas 1985, pls. 1-3; *Aegean* 34, 73 nos. 50-3, pl. 20:3). The instrument is represented as a roughly rectangular mass held rather unrealistically in a horizontal plane, instead in a vertical plane as it would be expected for an end-blown, ductless, vertical flute.¹⁰¹ The instrument reappears in the EIA, on terracotta and bronze representations from Greece and Cyprus (Fig. 3.17):

- (C) 61) ***Syrinx* player.** *NMA* 14216. From Argos, Heraion Sanctuary.
- 78) **Circle female dance with male *syrinx* player.** *CM* Inv. No. C332. From Cyprus, unknown context.
- 116) **Female with *syrinx*.** *CM* Inv.No. C698. From Cyprus, Arsos.
- 133) **Female with *syrinx*.** Archaeological Museum of Rhodes (Tomb “to Papa tes Lures” no. 13812). Kameiros Necropolis, Tomb 35, Rhodes.
- 139) **Female with *syrinx*.** Samos, Vathy Mueum Inv. No. T24. From Heraion Sanctuary, Samos.
- (M) 177) **Seated male *syrinx* player.** G. Ortiz Private Collection. Possibly from Arcadia.

Cat.61 from Argos shows the instrument in detail. The rectangular shape of the panpipe indicates that the tubes are of equal length; the latter are denoted by vertical incisions. Two narrow straps of clay are attached on the top and bottom ends of the rectangle, indicating the binding of the tubes together with a cord, as it is shown on later representations (see numerous examples in Haas 1985). The terracotta from Argos holds the *syrinx* in horizontal plane, like the Bronze Age Cycladic figures. This is rectified by the bronze figure Cat.177

¹⁰⁰ Panpipes are known to all the continents in various forms (*Survey* 589 ff.); for a detailed typology of the instrument worldwide see Haas 1985. For surviving panpipes from Egypt see Ziegler 1979, 92 no. 103.

¹⁰¹ This fact has led Younger to doubt the authenticity of all three examples (*Aegean* 34, n. 95).

which acquires the correct pose; the playing action is even more convincing with the Cypriote terracotta Cat.78, where the instrument is placed at a right angle with the mouth.¹⁰²



Fig. 3.17: *Syrinx*. Cat. 61, 78, 116, 133, 139, 177. a) Cycladic syrx player. ca 2800-2300 BC. Karlsruhe Badisches Landesmuseum Inv. No. 64/100 (after Preziosi 1994, 39 fig. 26 and Haas 1985, pl. 1a). b) Marble relief with *syrinx* player. Athens, Acropolis museum (after Haas 1985, pl. 8).

Cat. 116, 133 and 139 are few of the numerous similar figures that were produced by the Arsos workshop and deposited in Cypriote, Rhodian and Samian sanctuaries.¹⁰³ The object held on the side of the figures with the right hand was previously described as a “book” (Schmidt 1968, 29), but recently it has been proposed that it may represent a *syrinx* (*Coroplastic vB*, 213). The incisions that are seen on the edge of the rectangular object recall those noted on the panpipes played by the figure from Argos (Cat.61); similar rendering of the reed tubes is found on numerous three-dimensional representations of panpipes from the Archaic and Classical period. On Fig. 3.17b is shown such an example from the Acropolis at Athens; this figure also holds the instrument flat in front of the body, like it is shown on the Cypriote terracottas. These observations support the identification of

¹⁰² The figure has been previously interpreted as an *aulos* player (Flourentzos 1992; *Coroplastic ii*, 65); the modelling of the instrument is summary and compact, and such treatment is not usually found with the other terracotta *aulos* representations from Cyprus, with the exception of Cat.97, which strikes a characteristic pose of *aulos* playing. The playing position and the way it is placed between the palms find better parallels with the *syrinx* player representations.

¹⁰³ *Coroplastic vB*, 213 ff., 272

the object on Cat. 116, 133 and 139 as panpipes comprising 5-6 pipes.¹⁰⁴ It is possible that the lower non-incised part of the instrument was covered for the better preservation of the reeds; ancient sources mention that the pipes were stuck together with wax, the assembly often being reinforced by a cloth binding or a wooden frame.¹⁰⁵ This may explain why the pipes are not shown at the lower part of the instrument on the Cypriote mould-made terracottas, in contrast with the usual three-dimensional representations of panpipes in later periods.¹⁰⁶

From the iconography it becomes clear that the panpipes were played by both males and females. Some of the EIA figures are dedicated to sanctuaries and deposited in burials, a fact that indicates that flutes and panpipes had religious significance. In the 6th century BC, a bronze female playing the *syrinx* was dedicated at the Sanctuary of Artemis Orthia at Sparta (Dawkins 1929, pl. XC:b) and one of the Muses on the François Vase is shown playing the panpipes (Wegner 1949, pl. 2:a). On Cat. 78 it is accompanying a female dance, whereas the seated bronze Cat.177 with a pointed headdress may allude to the pastoral associations of the instrument. In later periods, the panpipe is connected with the gods Pan, Hermes, Attis and Kybele (see relevant entries in *LIMC* and Haas 1985).

3.3.2 Whistle pipes.

A few bronze simian-like seated figures from the Peloponnese and a terracotta from Cyprus bring their hands to their mouth and appear to hold a very short tube between their palms (Fig. 3.18):

- | | | |
|---------------------|------|---|
| (C) | 80) | Circle female dance with male wind player. <i>Louvre</i> Inv. No. AM 958. Cyprus, unknown context. |
| (MF) ¹⁰⁷ | 150) | Seated male wind player. Eretria Museum, Inv. No. 9929. From Eretria, context unknown. |
| | 153) | Male seated wind player. From Artemis Orthia Sanctuary, Sparta. |
| | 170) | 170) Seated male wind player. Tegea Museum. From Tegea, Mavriki (area identified as the sanctuary of Artemis Knakeatis). |

¹⁰⁴ For speculations on the range of intervals of the Greek panpipes see Strangways 1929, *West* 110 ff. and Mathiesen 1999, 222 ff.

¹⁰⁵ Athenaeus *Deipnosophistae* 4.82 mentions the wax-bound *syrinx* (*kerodetos*); see also Pollux *Onomasticon* 4.69; Strangways 1929; *West* 111.

¹⁰⁶ The coroplastic type of Cat. 116, 133 and 139 is associated with similar mould-made figures holding a tambourine (see chapter 5).

¹⁰⁷ For a similar figure from Chieti, Italy, possibly of Greek manufacture, see Langdon 1990, 410 fig. 9.



Cat. 80



Cat. 150



Cat. 153



Cat. 170



a.

Fig. 3.18: Whistle flutes. Cat. 80, 150, 153, 170. a) Cretan shepherd from Mesara plain playing a bone pipe (after Megaw 1961, pl. VII).

The figures are usually described as *auloi* players, implying the wind instrument most commonly found in Greek art, which consists of two cylindrical pipes, usually with a double reed (see below, chapter 3.4). In all the above instances, however, the pipes are too short when compared with two- and three-dimensional representations of single and double reedpipes, or with actual instruments.¹⁰⁸ Cat. 80, 150, 153 and 170 are consistent in showing an instrument that does not exceed the size of the palm and consists of a single pipe; the latter is made clear by the visible end of the instrument on Cat.153, as it is shown on Fig. 3.18. It is more likely that the instruments represented are very short, end-blown flutes, possibly with a small diameter, that would produce high pitch notes and that may or may not have had finger holes. As we have already mentioned, such bone flutes are attested in Greece since the Neolithic period (AU.16 and 25); the Neolithic notched flutes from Sesklo and Dispilio are 0.06 and 0.12 long respectively, and similar size can be postulated for the instruments played on Cat. 80, 150, 153 and 170. It cannot be speculated whether the EIA flutes would be notched, like the Neolithic ones, or would have a duct (stopped pipes); in the latter case they would be classified as whistles. The manufacture and playing of small bone flutes is a practice associated with pastoral activities in many parts of the world; an example of a modern Greek shepherd from Crete playing a small bone pipe is shown on Fig. 3.18a. The deposition of two of the bronzes at sanctuaries dedicated to Artemis (Cat.153 and 170), a deity associated with wilderness and nature, might indicate the pastoral connotations of

¹⁰⁸ For such instruments, see entries in *NGDMM*, *NGDMI*, *MMG* and ²*MGG* as well as the volumes in the series *MiB* on Islam, Anatolia, South and Central Asia, and China.

these bronzes. In many cultures bone whistles are used by hunters as bird catchers and as charms protecting from evil spirits (*Survey* 582; Megaw 1960). According to Sachs, flutes are primarily associated with life, rebirth, fertility and love magic (*History* 44-5; see also Guizzi 1990)

3.3.3 Flute or reedpipe?

The appearance of the instrument and the playing position of an EIA bronze seated figure suggests that an end-blown flute may be represented (Fig. 3.17):

(MF) 176) **Seated male wind player.** Los Angeles, Sol Rabin collection (prev. Pomerance collection). From Thessaly or North Greece.

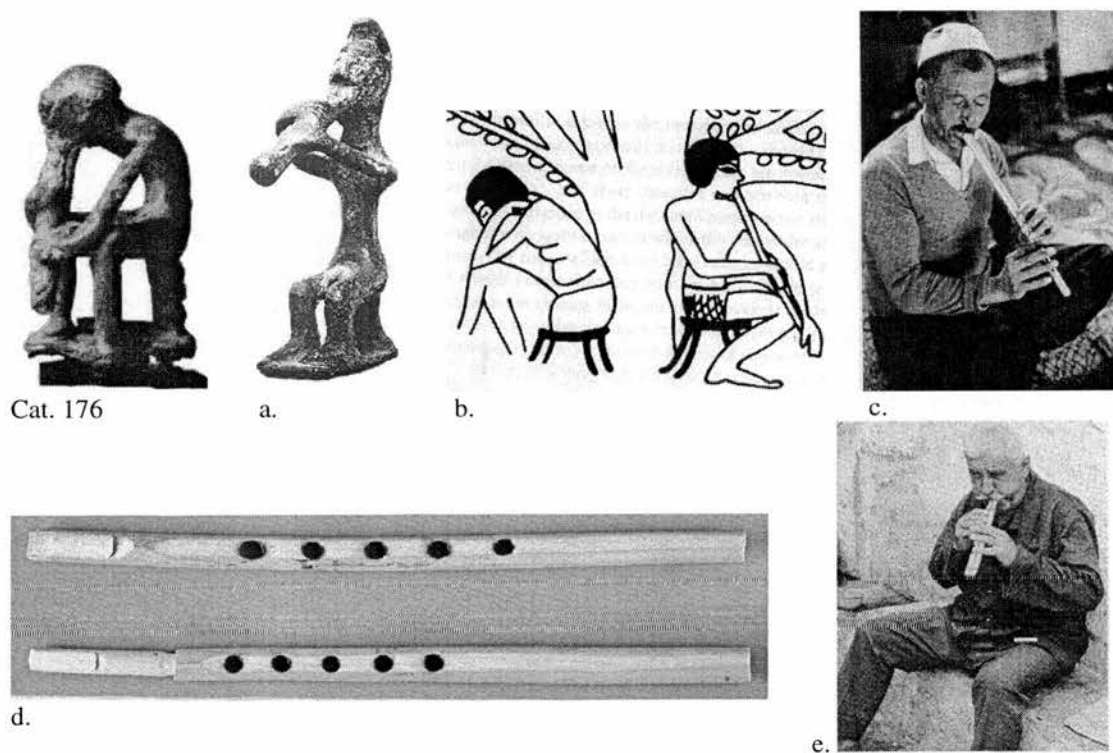


Fig. 3.19: Cat. 176. a) Urartian wind player. *Louvre* Inv. No. MNB398 (after Joukowski 1996, fig. 9.6). b) Egyptian relief in Theban tomb showing a flautist. XVIII Dynasty (after Manniche 1991, 9). c) *Nay* player (a short variety) from Kurdistan, Iran (after Jenkins 1976, 57). d) Modern Greek reedpipe with single reed (*madoura*), made of cane (after Anoyanakis 1979, 176 pl. 71). e) Turkish *argun* (two pipes with single reeds, the left pipe acting as a drone) (after Jenkins 1976, 66).

The instrument is shown as a long tube that is cylindrical throughout its length and slightly tapered towards the mouth, possibly in order to be smoothly connected with the mouth.¹⁰⁹ It is played with both hands, a fact which indicates that it had a significant number of finger holes. The hypothesis that the instrument may be an end-blown flute rather than a reedpipe is based on the iconography of the musician, who is leaning his head downwards in order to blow the instrument; this may be the reason why he is portrayed hunching his back so prominently. The seated position and the holding of a wind instrument in vertical plane are found with Egyptian representations of long, end-blown flutes (Fig. 3.19b), the equivalents of the modern *nay* (Manniche 1991; Jenkins 1976).¹¹⁰ A comparison with *nay* players from the Arabic countries as it is documented by modern ethnographical studies (Fig. 3.19 c), illustrates the similarities between the pose of the Greek bronze figurine and the real-life practice of ductless vertical flute playing. The length of the flute shown in Fig. 3.19c as well as that of the modern Greek ductless end-blown flute known as *floyera*, which is approximately 0.35 long, can also be compared to the length of the instrument of Cat.176 (which could probably be only slightly longer).¹¹¹ The *floyera* is played usually by shepherds, and many scholars accept pastoral associations for the ancient flute playing representations (Braun 1997, 74; Dumbrill 1998; Spycket 1972, 175).

The identification of the instrument played by Cat. 176 with ductless end-blown flute is tentative, however, since we cannot have any substantial information about the mouth-end of the pipe from the representation. It cannot be excluded the possibility that the tapering mouth-end was intended to represent a mouthpiece, most probably a single reed (see above, Fig. 3.3a-c). This would make it a reedpipe of the clarinet family (more precisely, a cylindrical single pipe with single reed), comparable to the Greek *madoura* for instance, which has a vibrating tongue cut from the wall of the tube, or a separate single-reed mouthpiece that is inserted at the mouth-end (Fig. 3.19d). The *madoura* has up to six finger holes and its length varies between 0.24-0.32 (Anoyanakis 1979, 161 ff.). This type of instrument is widespread in the Eastern Mediterranean and can have many variations. The crooked back of Cat.176 is compatible with both the ductless flute and the single-reed pipe hypothesis, as a relaxed pose when playing instruments with single reeds, like the Turkish

¹⁰⁹ Compare with the modern Greek variety of end-blown ductless flute known as *floyera*, made of cane or wood, which has an externally thinned mouth-end in order to facilitate blowing (Anoyanakis 1979, 147 fig. 81).

¹¹⁰ The modern Greek equivalent of the *nay* is called *tzamara*; its length varies between 0.69-0.82 (Anoyanakis 1979, 147 ff, pl. 62; Mazaraki 1972; see also AU.30).

¹¹¹ Another possibility is that a flute with duct is represented, but this type of flute is not exclusively seen held in vertical plane like the ductless flute, because the duct gives more flexibility to the player.

argun or the Arabic *arghul* for instance, may be acquired by the player (Fig.3.19e).¹¹² An almost vertical plane of the instrument can also be observed, a fact that makes the identification of the wind instrument played by Cat.176 even more troublesome.¹¹³

The bronze wind player Cat.176 does not have exact parallels in Greece. The figure is associated with the class of simian-like seated figures blowing whistles (as it has been suggested in the previous chapter) or playing the triton trumpet, and with the bronze belt pendants that are related to the latter (discussed in chapter 3.2.1). The scooped eyes and the modelling of the head and limbs recall the bronze from Sparta (Cat. 153). A cylindrical pipe, like that of Cat.176 (but without tapered mouth end), is also found on an Anatolian standing bronze figure dated (by style) between 900-700 BC; it is held in almost vertical plane (*Aign* 87, V/5, fig. 51); *Aign* interpreted it as a reedpipe without supporting his view. But the best parallel for Cat.176 is found on an Urartian bronze male wind player that is shown on Fig. 3.19a. This figure is seated and playing an instrument that consists of one tube of substantial size, with a slightly tapered mouth-end. This instrument, however, is slightly conical towards the end and it is played differently, in an almost horizontal plane, rather than in the vertical plane that we have observed on Cat.176. The Urartian figurine is probably playing a sort of reedpipe with slightly conical body, possibly a type of shawm (single conical pipe with double reed). Its similarity with the Greek bronze is restricted to the general aspect of the figures. It nevertheless signifies a common trend to represent wind players with single pipes in bronze, probably suggesting that these instruments gained popularity at the beginning of the 1st millennium BC in the Mediterranean. The Greek and the Urartian figures, however, encapsulate two different musical practices.

¹¹² It should be emphasised that these are double reed instruments (comprising two tubes) and that the parallelism drawn here is only with the playing position, which would not be much different if a single pipe of this type is played.

¹¹³ Manniche has also suggested that the crooked seated figure in Fig. 3.19b might be playing a sort of reedpipe (Manniche 1991, 23).

3.4 Reedpipes

Reed instruments do not appear earlier than the 3rd millennium BC and the Eastern Mediterranean seems so far to be their homeland. Sachs believed that reedpipes were played in pairs since the beginning, following the already known model of multiple flutes. Two thin cylindrical silver pipes from the Royal cemetery at Ur dated at 2800 BC are believed by most scholars to be a pair of reedpipes, even though the reeds have not survived (Pritchard 1954, 198). Reedpipes with single or double reeds are represented in tombs of the Old Kingdom in Egypt (Manniche 1991, 28 ff). With the addition of a marble idol from Keros, Cyclades (circa 2300 BC) it is confirmed that the reedpipes were well known in at least three major cultures of the eastern Mediterranean towards the end of the 3rd millennium BC. During the 2nd millennium BC the reedpipes became very popular in the Near East and Greece and were frequently depicted, in contrast with the flute that may have had a lower status in connection with pastoral activities (Braun 1997, 74; *Survey* 555, Spycket 1972, 175).

3.4.1 Double *aulos*: classification and EIA iconography

In general, the length of an open tube determines the pitch or fundamental note of the instrument, because the length of the tube containing the vibrating air column determines the length of the sound waves and the number of waves (frequencies) produced in a second.¹¹⁴ The pitch of reed instruments is a more complicated issue as it relies on the relation between the natural vibrating frequency of the reed and the resonant pitch of the tube.

Mahillon, Hornbostel and Sachs gave priority to the *type of reed* (single or double) in their classification of reedpipes. The latter classified collectively those aerophones with single reed as clarinets and those with double reed as oboes (*Hornbostel-Sachs* 24 ff).¹¹⁵

¹¹⁴ In a longer tube there are fewer pressure pulsations produced per second, hence a lower pitch is emitted. Pitch can be altered in a number of fashions, the most common being changing the sounding portion of a tube's length with fingerholes. Stopping (that is, covering one end of) an open pipe is another way to alter its pitch. A stopped pipe will sound an octave lower than an open (unstopped) pipe of the same length. Stopped flutes cannot have fingerholes as an open hole would at once un-stop the pipe; this is the case of the panpipes. Research on acoustics has shown that reed instruments with cylindrical bore also behave as stopped pipes but, in this case, "since they are excited at the stopped end, fingerholes can be employed freely" (Baines 1957, 30 ff.).

¹¹⁵ This view is also shared by Mathiesen, who conducted acoustic experiments on replicas of ancient Greek cylindrical double pipes that he played with both types of reed, single and double. He attributed the pitch and the intervals produced by the use of finger holes to the length and dimensions of the parts of the reed, its voicing and its susceptibility to overblowing and lip control. More specifically, he noted that both mouthpieces produced a full and resonant timbre; the single-beating reed in particular produced louder tone, lower pitches and abundant harmonics, whereas the double-beating reed had a

Nevertheless, what makes a given sound characteristic of a certain instrument is not the pitch but its timbre (tone colour or sound quality). This is determined by the presence or absence, relative strength or weakness of the harmonics produced whilst a note is sounded. Most musicologists find that the *shape of the tube* rather than the type of reed is one of the major physical factors responsible for the presence of different harmonics, which in turn influences the pitch and the character of sound.¹¹⁶ In this aspect, the significant distinction is made between the cylindrical and conical bore and the fact that each one produces different harmonics.¹¹⁷ The conical bore follows the acoustics of an open pipe; this means that it is capable of producing the full harmonic series (including the octave) and has therefore a diatonic scale of two octaves or more.¹¹⁸ Summarizing the results of research on acoustics, we can say that narrow (cylindrical) bores and small finger holes emphasise high harmonics whereas wider conical bores favour lower and deeper harmonics.¹¹⁹ A cylindrical bore, irrespectively of the type of reed used, is bound to produce a fundamental about an octave lower than that of a conical bore of the same length, with a tonal quality of the clarinet family (Landels 1960, 271; Rimmer 1969, 35; MacGillivray 1961, 218).

Becker criticised the use of the clarinet and oboe as insufficient classificatory terms and offered a new typological organisation for the reed instruments using as a primary criterion the shape of the body of the instrument (Becker 1966, 33-34). He recognised two major

clearer tone. The double-beating reed was susceptible to increasing wind-pressure and overblowing offering a better control over pitch, whereas the single-beating reed was responsive to the shortening or lengthening of the tongue by the lips (Mathiesen 1999, 211-212). Landels insisted on the importance of the reed quality (length, resistance and flexibility of tongue that influences its natural frequency) in the production of harmonics (Landels 1960, 273 ff.), and examined in detail the subject of lip control of the ancient Greek aulos in relation to the literary and iconographic sources.

¹¹⁶ Rimmer 1969, 35; MacGillivray 1961; Becker 1966; Baines 1957, 199 stresses the fact that the two kinds of reed produced basically the same kind of tone quality when played with a pair of cylindrical pipes.

¹¹⁷ A cylindrical tube open at both ends produces a full harmonic series (the fundamental, octave, twelfth etc). A cylindrical tube closed at one end follows the so-called "acoustics of a stopped pipe"; it produces the fundamental an octave lower than an open tube and only the odd harmonics (12th, 3rd of the 3rd octave etc.). This view can be found in all textbooks on acoustics; nevertheless MacGillivray points out that "in their primitive form (cylindrical reed pipes) cannot produce harmonics at all and are therefore confined to a maximum compass of about an octave) (MacGillivray 1961, 218).

¹¹⁸ Naturally the subject is much more complicated than it appears in the present study. Both pitch and timbre are the result of various factors combined and the shape of instrument or type of reed are simply the most straightforward and meaningful for a primarily iconographic study. For a more detailed account on woodwind acoustics see Baines 1957 30 ff.; Bate 1962, 107 ff.; Berg & Storck 1982; Campbell & Greated 1987, 194 ff.; Fletcher & Rossing 1998.

¹¹⁹ Modern experiments have investigated the type of resonances responsible for the variety of timbre. Thus the pure upper tones of a flute (open pipe) are due to the fact that the second harmonic (the octave above the fundamental) predominates. The conical oboe (acoustics of the open pipe) owes its pungent tones to the sounding of the most part of the harmonic series, whereas the prevailing of odd harmonics in the case of the cylindrical clarinet (stopped pipe acoustics) result to a mellow and rich sound effect.

categories of reed instruments (glottophones): a) those with cylindrical body collectively described as *euthyphones* and b) those with conical body collectively described as *enklinophones*. He introduced sub-types for these categories, based on the type of reed employed (single, double, downcut, upcut, idioglottal or heteroglottal). Finally he referred in his system to the vertical or horizontal position when playing, a piece of information totally disregarded from the other systems.

In the Hornbostel-Sachs system the ancient Greek *aulos* is classified as a double-beating reed instrument with cylindrical body. Becker, however, provided iconographic and literary evidence for the use of the single-reed mouthpiece as well as for instruments of the shawm type, with conical body and double-beating reed.¹²⁰ The EIA representations of reedpipes are rather summary and often in silhouette; thus the information that can be extracted from them is limited. In the EIA iconography there are no examples of conical pipes (with the probable exception of Cat.215 and 218), but the pipes are rendered as single lines (in LG vase painting) or straps of clay (in coroplastic).¹²¹ Therefore they are all considered here to be cylindrical, bearing in mind that this is a necessary generalisation. As we can not see the type of reed used, we can only make observations on the length of the instrument, whether it is conical or cylindrical, and the way that it is held when played. We have already noted the importance of the first two factors (length and shape) for the pitch and sound quality of the reedpipes. The plane in which the pipes are held and their relation to each other is important as it may be suggestive of the type of reed used. The pipes appear to be played at various angles (vertical, horizontal and oblique). When played in pairs, they are held either closely together (parallel pipes) or with the bores being far apart, forming a visual V (divergent pipes). Many musicologists claim that this difference is indicative of the type of mouthpiece used, and that the divergent pipes are played with a double-beating reed whereas the parallel pipes with a single-beating reed, and they base their views on folk reed instruments still played in Egypt, the Mediterranean and other places.¹²² Hence, the parallel double pipes have been compared to the Egyptian *zummârah* sounded with a single beating reed (Fig. 3.20 bottom; Hickmann 1949; Manniche 1991). The divergent pipes have no exact modern counterpart. They have been compared to the Japanese *hichiriki* (a kind of shawm with

¹²⁰ See Becker 1966, 49, 59, figs. 3 and 8. He also re-interpreted the passage by Theophrastus as describing the construction of a single-beating reed mouthpiece (previously thought to describe the making of a double-beating reed) (Becker 1966, 51 ff).

¹²¹ Slightly conical pipes are found on some Cypriote three-dimensional representations from the Archaic period onwards. See examples in Ohnefalsch-Richter 1893, 491, pl. 214:11; Myres 1914, 149 no. 1027; Myres 1940-5b, 62 no. 111; Museum of Fine Arts, Boston 1972, pl. 36.

¹²² Baines 1957, 195 fig. 42; Becker 1966; Manniche 1991, 28, 48; Paquette 1984; contra Marcuse (*Survey* 651).

cylindrical bore sounded with a double beating reed resting on a pirouette), although the latter is not played in pairs, or with the Sardinian *launeddas*, which is nevertheless sounded with a single reed (Fig. 3.20 top; Paquette 1984).

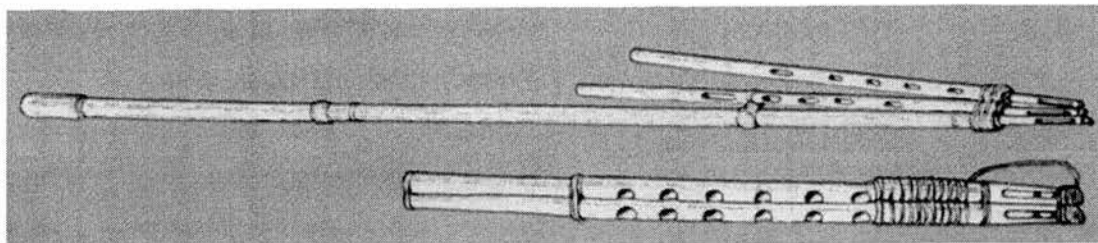


Fig. 3.20: Top) Sardinian *launeddas*. Bottom) Egyptian *zummârah* (after Petacchi & Sellari 2001, 42).

Following this as a criterion, the EIA double *aulos* representations have been categorised here according to the way they are held. They are distinguished in parallel and divergent, with a further sub-division as to whether they are held in vertical or in horizontal plane. When possible, the length of the pipes is estimated in proportion to the forearms of the figure that is playing the instrument.¹²³ Scholars generally agree that the *aulos* varieties *hyperteleioi*, *teleioi*, *kitharesterioi*, *paidikoi* and *parthenioi* that are mentioned in literature correspond with bass, baritone, tenor, alto and soprano respectively (West 1992, 89; Landels 1960, 44 ff.; Paquette 1984). On this basis, Paquette suggested the following pipe lengths for each category:¹²⁴

- Soprano, 20-30 cm.
- Alto, 40-50 cm.
- Tenor, 50 cm ±
- Baritone, 80 cm ±
- Bass, 1 m. and over.

TYPE (A): Divergent, horizontal

i) With blob at the end (Fig. 3.21):

(VP) 24) Neck amphora. *Louvre* Inv. No. CA2985. Attic, unknown context.

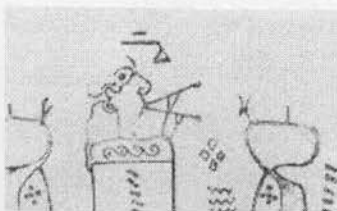
28) Hydria neck fragment. Athens Agora Museum, Inv. No. P22685. From the Athenian Agora, Well F.

¹²³ An average length of 0.20-0.25 has been postulated for the forearm.

¹²⁴ Paquette 1984, 25.



Cat. 24



Cat. 28

Fig. 3.21: *Auloi*, divergent, horizontal (i).

Each pipe is represented as a thin line, which is slightly marked at the end. If this is not coincidental, resulting from the paint-brush, then it might denote that the pipes had a slightly conical bore at the end. This is seen on some surviving instruments (AU.29), and it is also found with Etruscan representation of double *auloi* that are rendered in outline (Jannot 1974). The slightly conical bore would aid resonance. In both paintings the pipes are held near the middle, and their length is estimated between 0.20-0.30.

ii) Plain cylindrical (Fig. 3.22):

- (VP) 20) **Neck amphora.** Düsseldorf, private collection. Attic, context unknown.
- 26) **Hydria.** Bochum Ruhr Universität, Antikenmuseum Inv. No. 1067. Attic, context unknown.
- 34) **Chigi olpe.** Villa Giulia Museum Inv. No. 22679. From Veii, Italy.
- 49) **Hydria fragment.** Samos, Inv. No. III/42. From Heraion Sanctuary, Samos.
- (C) 95) **Standing male *auloi* player with moveable legs.** CM Inv. No. 1981/V-4/1. Cyprus, unknown context.
- 97) **Standing male *auloi* player with moveable legs.** MMNY 74.51.1691. Said to be from a tomb at Idalion.
- (MF) 148) **Seated male *auloi* player.** Brussels Inv. No. A478. Unknown provenance.
- (MV) 156) **Votive plaque, winged(?) female *auloi* player.** Sparta Museum. From Artemis Orthia Sanctuary, Sparta.
- 160) **Votive plaque, female *aulos/auloi* player.** Sparta Museum. From Artemis Orthia Sanctuary, Sparta.
- 161) **Votive plaque, comast? *auloi* player.** Three examples. Sparta Museum. From Artemis Orthia Sanctuary, Sparta.
- 163) **Votive plaque, male *aulos* player.** Two examples. Sparta Museum. From Artemis Orthia Sanctuary, Sparta.
- 165) **Votive plaque, female *auloi* player.** Sparta Museum. From Artemis Orthia Sanctuary, Sparta.

- (M) 181) **Shallow bowl.** *MMNY* Inv. No. 74.51.5700. From Idalion, Cyprus, found in a chamber tomb.
- 182) **Shallow bowl.** *BM* Bronzes Catalogue No. 186. From Salamis, Cyprus, unknown context.
- 183) **Shallow bowl.** *MMNY* Inv. No. 74.51.4557. From Cyprus, Kourion (allegedly from “the Kourion treasure”).
- 184) **Shallow bowl.** *MMNY* Inv. No. 74.51.4556. From Cyprus, allegedly from Kourion (“the Kourion treasure”).
- 185) **Shallow bowl.** *MMNY* Inv. No. 74.51.4555. From Cyprus, context unknown.
- 186) **Shallow bowl.** Eretria Museum. From Lefkandi, Tomb 70.
- (SE) 192) **Cubic seal. Standing *auloi* player and female with jar.** Acropolis Museum Inv. No. 7237. From the Athenian Acropolis, context unknown.
- (F) 195) **Procession of musicians towards seated figure.** Eretria Museum. From Eretria, Apollo Daphnephoros Sanctuary.
- 198) **Group of musicians.** *BM*, H. Walters Cat. No. 301. From Rhodes, Kameiros.

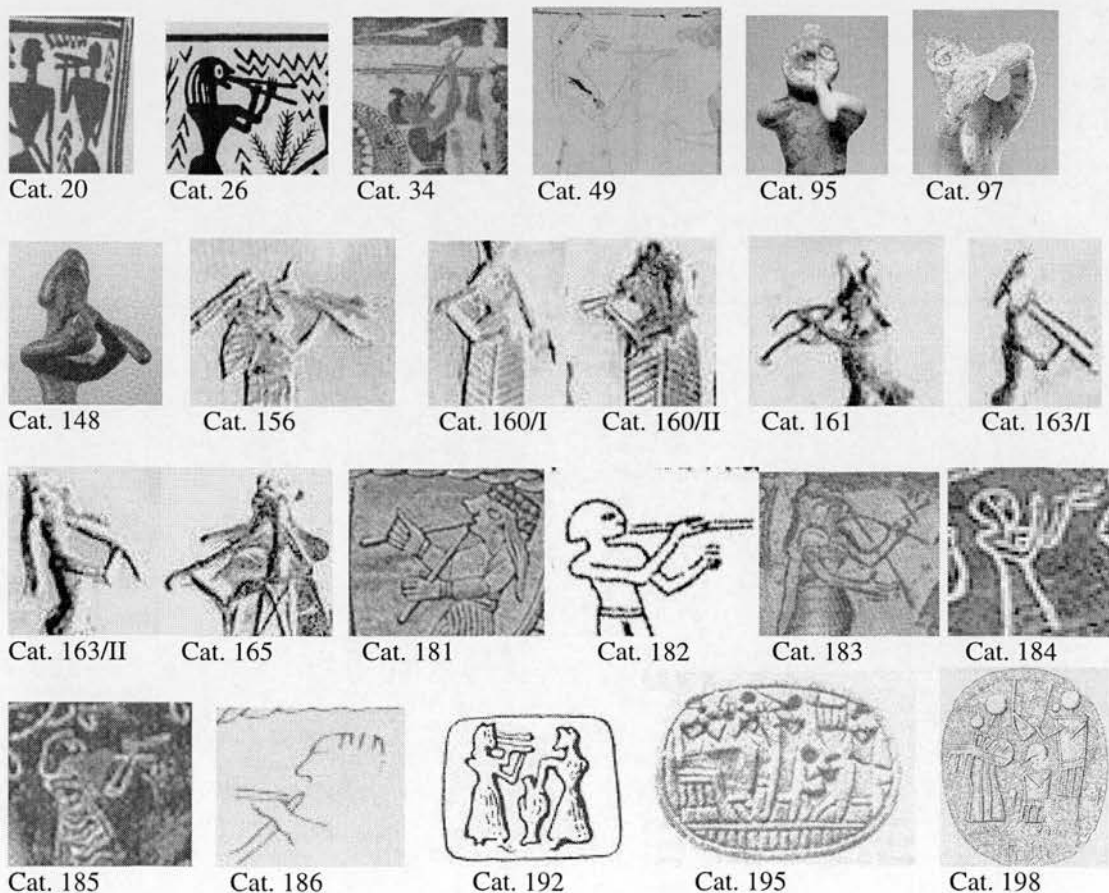


Fig. 3.22: *Auloi*, divergent, horizontal (ii).

This is a common iconographic type, found in all kinds of media. The pipes are usually long, between 0.40-0.50, with the exception of the two female lead figures from Artemis Orthia sanctuary (Cat. 160/I and 160/II), the sketchy representation on Cat. 198, and Cat.95 and 97 from Cyprus. Cat. 97 is unclear; it is classified here on the basis of its playing technique, that is comparable to that of Cat. 34. The *auloi* on Cat. 181 may be held at an oblique angle rather than horizontally, but it is classified here in analogy with the other representations from the “Cypro-Phoenician” bowls. Cat. 148, 161, 181 and 183 show a pair of *auloi* that are unequal in length; this feature is seen on some of the instruments where both *auloi* of the pair have survived (AU. 5, 22, 27). It is noticeable that this variety is depicted combination with a religious performance context (Cat. 181, 186, 195), as the accompaniment of dancing (Cat. 20, 26, 49), in funerary ritual (Cat. 20), but also with a military scene (Cat. 34). The seated bronze Cat.148 has no parallel; its modelling is different from the seated figures playing wind instruments (flute, whistles and triton trumpet) that we have discussed so far.

Type (B): Parallel, horizontal (Fig. 3.23):

- (VP) 21) **Fragment.** *NMA* Inv. No. 291. From Athens, Acropolis, context unknown.
- 29) **Hydria neck fragment.** Berlin, Staatliche Museum, Inv. No. 31573 A1.
 From Aegina, unknown context.
- 45) **Amphora neck fragment.** Eretria Museum Inv. No. 3275. From Eretria,
 found in an area of the heroon.
- (C) 77) **Circle female dance with male *auloi* player.** *CM* Inv. No. C333. From
 Cyprus, unknown context.
- 93) **Standing male *auloi* player.** Torino, Museo di Antichita, Inv. No. 5727.
 From Cyprus, Idalion, context unknown.
- 94) **Standing male *auloi* player.** Torino, Museo di Antichita, Inv. No. 5722.
 From Cyprus, Idalion, context unknown.
- 152) **Squatted simian playing the *auloi*.** *BM*, Inv. No. 64.10.7.3. From
 Kameiros, Rhodes.
- 163) **Votive plaque, male *aulos* player.** Second example. Sparta Museum
 From Sparta, Artemis Orthia Sanctuary.



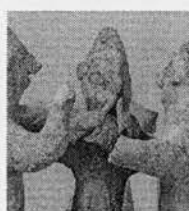
Fig. 3.23: *Auloi*, parallel, horizontal. a-c) Egyptian oboists (after Manniche 1991, figs 27, 28, 35).

This category comprises a very long variety (probably reaching more than 0.50 in length) in which the pipes are held near the middle or lower part. These long and thin pipes recall the representations of Egyptian instruments of the oboe family, with double-beating reed, that are shown sometimes held almost parallel (like the EIA representations) and sometimes divergent, either in vertical plane or at an angle (Fig. 3.23a-c; Manniche 1991). The position of Fig. 3.23a in particular is very similar to that of Cat. 21, 29a, b and 45. The long varieties of types A and B are closely associated and they may have been similar instruments. Cat. 77, 93, 94 and 152 on the other hand are much shorter than all the other variants, and it is difficult to associate them with a specific type of instrument.

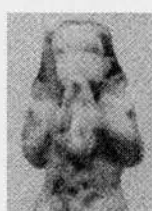
Type (C): Divergent, vertical (Fig. 3.24):

- (C) 98) **Circle male dance and *auloi* player.** Vienna Kunsthistorisches Museum
Inv. No. V1172. From Cyprus, possibly Idalion.
- (F) 203) **Pendant of seated male *auloi* player.** Chios Museum. From Chios, Athena
Temple Terrace.
- 204) **Pendant of kneeling male *auloi* player.** Chios Museum? From Chios,
Harbour Sanctuary.
- 208) **Figurine of advancing (male?) *auloi* player with hawk.** BM Inv.No. 60.4-
4.83. From Rhodes, Kameiros.

- 209) **Figurine of advancing *auloi* player with goat.** *Louvre* Inv. No. S590. From Rhodes, Kameiros, context unknown.
- 213) **Pendant of *auloi* player.** Istanbul Museum. From Rhodes, Athana Lindia Sanctuary.
- 214) **Pendant of squatting *auloi* player.** *BM* Inv. No. 61.10-24.19. From Rhodes, Kameiros.
- 217) **Figurine of male *auloi* player.** Deutsches Archäologisches Institute. From Heraion Sanctuary, Samos.
- 218) **Figurine of male *auloi* player.** Deutsches Archäologisches Institute. From Samos, Heraion Sanctuary.



Cat. 98



Cat. 203



Cat. 204



Cat. 208



Cat. 209



Cat. 213



Cat. 214



Cat. 217



Cat. 218

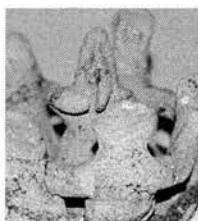
Fig. 3.24: *Auloi*, divergent, vertical.

This type is found mainly with three-dimensional representations in faience; the vertical position may reflect the performance practice, but it is likely that this modelling was preferred due to the difficulties to produce moulds with pipes in horizontal plane. Otherwise, it could be suggested that a single-beating reed is intended here. Cat.218 presents slightly conical pipes, which may or may not have been incidental; in any case, the change in diameter is very subtle and not enough to characterise this instrument as conical.

Type (D): Parallel, vertical (Fig. 3.25):

- (C) 76) **Circle female dance with male *auloi* player.** *CM* Inv. No C336. From Cyprus, unknown context.
- 140) **Standing male *auloi* player.** Samos exc. no. T147+661. From Samos, Heraion Sanctuary, Roikos Altar area.

- 206) **Squatting simian *auloi* player.** *HM* Inv. No. Y1665. From Crete, Fortetsa, Tomb P.
- 210) **Pendant of standing female *auloi* player.** *BM* Inv. No. 60.4-4.78. From Rhodes, Kameiros, Rhodes.
- 211) **Pendant of kneeling male *auloi* player.** *BM* 61.10-24.20. From Rhodes, Kameiros.
- 215) **Pendant of advancing male *auloi* player.** From Rhodes, Athana Lindia Sanctuary.
- 216) **Pendant of kneeling male *auloi* player.** Vathy Museum. From Samos, Heraion Sanctuary.



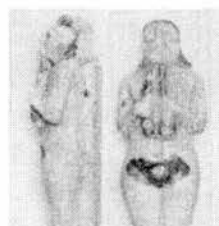
Cat. 76



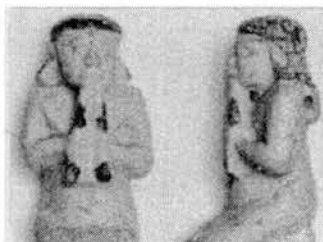
Cat. 140



Cat. 206



Cat. 210



Cat. 211



Cat. 215



Cat. 216

Fig. 3.25: Auloi, parallel, vertical.

This type is associated with the previous type (C), as again most examples are made of faience and the morphology of the pipes is very similar in both types. In both cases the instrument is held towards the lower part. Cat. 215 has slightly conical pipes, but just like with Cat. 218, the change in diameter is very subtle and not enough to characterise this instrument as conical. The terracotta from Samos (Cat. 140) is exceptional in that it presents a Seilinos playing the pipes, probably the earliest representation of this subject.

3.4.2 *Elymos aulos*

Joining an additional part at the end of a cylindrical tube alters the acoustic effect. If the addition is conical with a much wider bore than that of the tube, then the sound is amplified. Wind instruments with cylindrical pipes with a horn or a prominently bell-shaped component attached at the end of the tubes are found in various cultures of the Mediterranean and in Europe.¹²⁵ The earliest attestation of this type is found in Crete, on the decoration of a sarcophagus from Agia Triada.¹²⁶ On the decoration of one of the long sides of the sarcophagus, an *aulos* player is accompanying a bull sacrifice in front of a shrine with horns of consecration. A procession of three fragmentary female figures approaches the sacrificial table, whereas before the animal a “priestess” performs rites on an altar.

Only the upper and lower part of the aulos player can be seen behind the sacrificial table. The musician has dark red-ish skin and is wearing a long straight robe with short sleeves and decorative bands at the bottom and the shoulders. The dark colour of the skin indicates that the aulos player is a male.¹²⁷ The double auloi are held horizontally. The plaster is damaged towards the bore of the auloi and their lower part is missing. The two tubes appear to be cylindrical and parallel on the fragment that has survived. On the adjacent piece of fresco a brown pointy end and a blue¹²⁸ curved object with two yellow bands at the top are visible at the same level of the right and left tube respectively. Both motifs have been incorporated into the instrument at the reconstruction of the fresco, the former as the mere end of the cylindrical body of the right pipe and the latter in the shape of an acoustic horn attached upward to the left pipe, thus providing the characteristic features of the Phrygian aulos (two dissimilar pipes, one with a cylindrical body and one with an adjusted horn component). The difference in colour of the curved object from the rest of the auloi does not contradict this identification, as the bell of the Phrygian aulos was made of wood or animal horn and it was clearly distinctive from the pipes. In this case Aign suggests that it was made of silver, a semi-precious metal appropriate for instruments used by royalties or in elaborate ceremonies such as this of Agia Triada sarcophagus.¹²⁹

¹²⁵ See Baines 1995 for a review of the various modern folk instruments of this type.

¹²⁶ Levi 1956, 192-9; Long 1974, 61 ff, pl. 30-31; Aign 44 ff. II/11, II/13 Abb. 15, 17; *MusikTanz* 77 no. 81; Immerwahr 1990, 100-2; *Aegean* 31 ff, 66-68, pls. 10-11.

¹²⁷ Long (1974, 64) mentions that not only the skin colour but also the type of garment points towards a male identity, and she reports other occasions of male processions where a similar dress is worn.

¹²⁸ For no apparent reason Long describes it as black (Long 1974, 62).

¹²⁹ The silver pipes from the royal cemetery of Ur dated at 2800 BC are an example of the use of silver in wind instrument making.

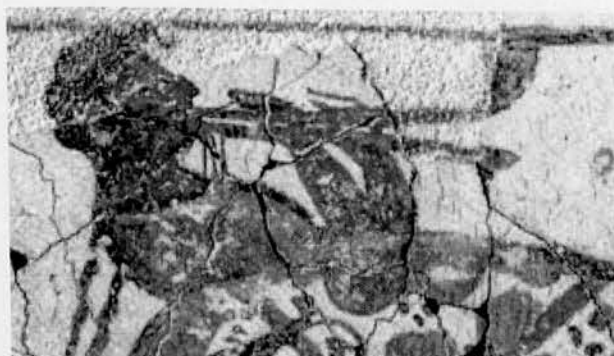


Fig. 3.26. *Aulos* player on the Agia Triada sarcophagus. LM IIIA1. *HM* (after Levi 1956, fig. 1).

This reconstruction leaves us with the earliest representation of a Phrygian *aulos* or *elymos aulos*, an instrument known from the literary sources of the first millennium BC, whose name is thought to be indicative of its origin. Both Long and Aign favour this reconstruction, claiming that if the object is identified otherwise,¹³⁰ there will not be enough space left for the missing part of the pipe, which in this case would have to be much shorter than the right pipe. In our previous discussion on divergent *auloi* held horizontally, we noted that some representations showed pipes of unequal length (chapter 3.4.1, type (A)) and there are a few representations of a much later date that feature *auloi* that are indisputably of unequal length,¹³¹ but the difference is not very prominent, whereas the pipes of the Agia Triada sarcophagus would present a significant disparity; it therefore seems that the reconstruction of the bell-component for the left pipe may be correct (contra *Aegean* 32).

The cylindrical body of the pipes is painted brown and three black stripes are also visible across the width of the tubes near the mouth. This pattern was also applied at the lower part of the pipes,¹³² if not at the whole body of the *auloi*. Younger interprets them as the ridges of the reed which forms the body of the *aulos*, but it could equally be a decorative pattern¹³³.

¹³⁰ Long (1974, 64) has suggested alternative explanations for the miscellaneous curved object as a floating conical bowl with inlaid decoration, but she concludes that the identification with an acoustic horn is more persuasive. Younger nevertheless provides with a list of “floating” vessels for comparison and finds the presence of such an object in keeping with the context of the scene (*Aegean* 32, n.89).

¹³¹ For a frontal and a side view of *auloi* that are unequal in length see Paquette (1984, 40, A10; 52 A38).

¹³² Traces of black paint can be seen on the right pipe at the edge of the fragmented plaster as well as the pointy continuation of the pipe on the next piece. Black paint is also applied irregularly on the *auloi* on the Knossos fresco.

¹³³ On folk wind instruments string or cord are usually tied around the pipes without any structural function. The same visual effect can be created by simply carving parallel grooves around the body of

The stripes near the mouth could also represent the attachment of the mouthpieces to the pipes in a way similar to that observed on the *zummârah*, the Arabic folk clarinet.¹³⁴ Reinach (1926, 320) suggested that the stripes indicate a form of attachment of the two pipes to each other, thus forming parallel *auloi* similar to the Egyptian wind instruments.¹³⁵ The *auloi* however are clearly divergent as the distance between them increases distinctly towards the end of the pipes; this is in concordance with the later representations of the Phrygian *aulos* during the Roman period where the two pipes form a V near the player's mouth.¹³⁶ The three lines that hang before the aulete's mouth cannot be possibly associated with the black stripes on the *aulos*, as they are of different colour; their position as part of the *phorbeia* is awkward and therefore they remain a mystery (contra *Aegean*, 31).

Three EIA representations of wind players demonstrate that this type of double reed instrument, with one of the two pipes ending in a sort of bell or horn-shaped arrangement, continued to be played in the Aegean and the Eastern Mediterranean without interruption (Fig. 3.27):

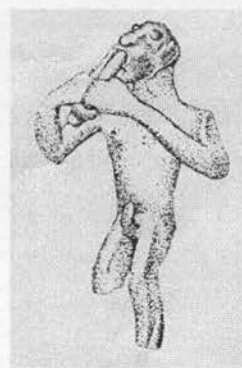
- (MF) 143 **Standing male *auloi* player.** *HM* Inv. No. 3147. From Crete, Syme Viannou, Sanctuary of Hermes and Aphrodite.
- (M) 187 **Shallow bowl.** *NMA* Inv. No. NM 7941. From Olympia, river Alpheios
- (C) 212 **Figurine of squatting male *auloi* player (*elymoi*).** From Rhodes, Athana Lindia Sanctuary.



Cat. 187



Cat. 212



Cat. 143

Fig. 3.27: *Elymos aulos*. Cat. 143, 187, 212.

the pipe. In any case, the pattern seems to imitate the ridges of the reed. Also compare the same treatment on the bone body of AU.11 and 30.

¹³⁴ Bélis 1986, 36 favours a similar interpretation, suggesting that the three lines represent a kind of a primitive *hypholmion*, or that they denote the attachment of different sections together.

¹³⁵ For a list of surviving instruments that provide evidence of such ligature see Bélis (1986, 86 n. 67), although she dismisses this option for the Agia Triada *auloi*.

¹³⁶ See for example Bélis 1986, fig 4 for a relief from Porte Majore Basilica, and Gomotti 1975, fig. 4 for a Pompeian fresco showing Phrygian *auloi*.

The earliest example is dated at the PG period (Cat. 143). It is a naked male figurine with simian features, wide torso and exceedingly long arms holding the *auloi*, erected genitalia and slightly bent legs. It has been recently reconstructed as part of the decoration of a bronze stand, with the *auloi* player facing two quadrupeds (probably denoting sacrificial animals) and another frontal figure (see pl. 16). The daemonic, bacchic appearance of the musician is not repeated by the other figure on the stand, and it is probable that the artist intended to represent a non-human musician.¹³⁷ The peculiarities of the features and the unrealistically long arms recall the bronze seated *auloi* player from Sparta (Cat. 153) and other similar figurines that often have simian-like features (see previous chapter 3.3.2).

The *auloi* have been broken at the level right above the hands, thus they appear bended straight after the mouth, like an S, and this has caused the distortion of the position of the arms which appear to be too close to the chest. Their original position and shape is shown on a reconstruction drawing provided by the excavator (Fig. 3.27; compare with pl. 16). The arms were less contracted; the tubes of the *auloi* were straight and the instrument was played at an angle (almost horizontally) in a very naturalistic rendering.

Both hands are grasping the *auloi* at the same level. The pipes are reported to be of equal length, with the straight right tube slightly wider in diameter (although this could be merely accidental and not an important structural feature). The left tube ends in a small bell-shaped bore turned upwards, in the same way that the adjusted horn is represented at the representations of Phrygian *auloi* at the Roman period. Nevertheless, the bell is much smaller than the reconstructed horn of the Agia Triada sarcophagus and the *auloi* are portrayed parallel rather than divergent, held closely together in a manner that does not conform to the known representations of the Phrygian *auloi*. In addition, they do not belong to a long variety like the majority of the Roman examples (or even the *auloi* of Agia Triada), but are quite short, estimated about 0.30 long.

The subject of the statuette is in keeping with its findspot near a sacrificial pyre, as *aulos* playing is known to be a common accompaniment to sacrifices (Nordquist 1992; 1994). The *aulos* player has been reserved for the sacrificial scene on the Agia Triada sarcophagus as well, and the bronze from Syme must be taken to denote a similar practice.

¹³⁷ Lebesi 1988 and 2002.

A similar instrument is depicted on a bronze bowl probably of Syro-Phoenician manufacture that was found at Olympia. The *aulos* player carries an *aulos* case on the right shoulder. The double *auloi* are played horizontally. The right pipe is cylindrical whereas the left pipe has a conical ending that looks like a small bell,¹³⁸ which is double in diameter than the rest of the cylindrical body of the *aulos*. Both pipes seem to be of equal length, with the left one just a fraction longer. Their length is similar to that of the instrument on Cat.143 from Syme Viannou (estimated approximately 0.30). This time the pipes are divergent and the hands are placed on different levels, the right holding the pipe towards the mouth-end, while the left grasps the tube near the bore. This is the earliest example of a non-identical position of hands in the *auloi* representations of the Mediterranean.

Markoe described the musicians as female (*Bowls* 204); nevertheless, they are portrayed in exactly the same manner as the male seated figure, whereas the females on this bronze have longer hair down to the shoulders.¹³⁹ Therefore it could be argued that our *aulos* player is male, and this would be in accordance with all the other representations of the Phrygian *auloi* players under examination.

The bowl bears an Aramaic inscription of twelve characters on the outside, denoting the manufacturer or the proprietor. Many scholars have emphasised the stylistic relation of the bowl (amongst other bronze bowls from Greece and the Aegean islands) with the bronze bowls and ivory pyxis from Nimrud (Barnett 1977; Falsone 1988, 236). Markoe emphasised the egyptianizing character of the pictorial decoration, especially with regard to the Isis-suckling Horos-Osiris seated figures of the two opposing metopes and the Osiris-Isis-like aedicules that separate the frieze into four metopes (*Bowls* 124). The Olympia bowl has attracted less scholarly attention than the related "Cypro-Phoenician" bowls with musical processions from Greece and Cyprus (Cat.179-187, 190) and the particularities of the musical instruments represented on it have been overlooked.¹⁴⁰ The combination of an Aegean type of lyre held upright with a Phrygian *aulos* connects this scene with that of the Agia Triada sarcophagus.

¹³⁸ The bell-shaped ending can be easily mistaken as part of the hair of the musician preceding the *auloi* player. A careful examination though has shown that this is not the case and the conical shape of the left pipe is accurately designed and executed.

¹³⁹ The hairstyle of the musicians (as well as the seated male) is very similar to that of the musicians on an ivory pyxis from Nimrud (see Barnett 1982), who are also described as females.

¹⁴⁰ See for example Aign (*Aign* 161), who gives a drawing where the *auloi* are misrepresented as two identical cylindrical pipes.

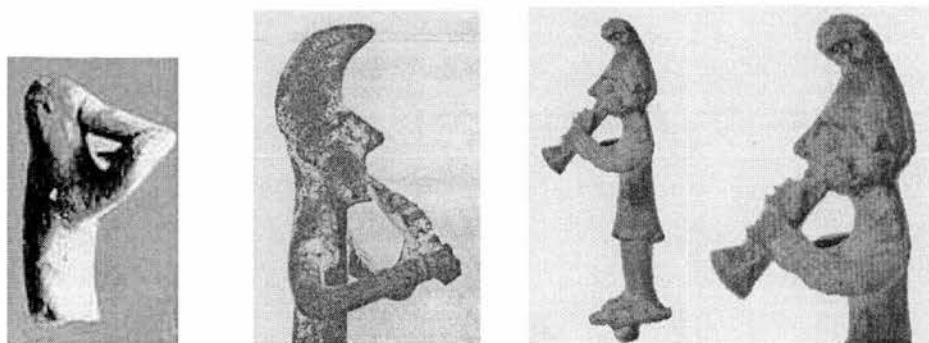
A squatting male double *auloi* player from Lindos, made of faience, is different from the faience representations that we examined in the previous chapter, as he might also be playing an *elymos aulos* (Cat. 212). The pipes are held vertically and slightly divergent. Both tubes have equal width. The left pipe is straight and cylindrical, but the right pipe continues beneath the palm and turns upward in a bell-shape ending. Similarly to the Olympia bronze bowl, the *aulos* player holds the straight pipe slightly higher than the right pipe with the bell-ending. This is the only example of this type of instrument in faience. Although the instrument has been studied from a drawing coming from the original publication and not from examination of the actual artefact, it is very clear that the two pipes are not identical, especially when compared with other faience of *auloi* players from Lindos and elsewhere.¹⁴¹

3.4.3 Single aulos

Iconographic evidence for single reedpipes in the Aegean is not found prior to the EIA, although such instruments must have been played much earlier. Two EIA examples present short, single, cylindrical pipes, estimated to be around 0.25 long (Fig. 3.28):

(C) 142) ***Aulos* player.** From Artemis Orthia Sanctuary, Sparta.

(MV) 175) **Standing male *aulos* player.** Worcester Art Museum Inv. No. 1957.138.
Allegedly from Attica.



Cat. 142

Cat. 175

a.

Fig. 3.28: Single aulos: Cat. 142, 160, 175. a) Bronze shawm player from Asia Minor. *BM* Inv. No. 134975 (after Rimmer 1969, pl. VIIIc).

Cat.142 is too summary to offer any information on the morphology of instrument that is played. The pipe on Cat.175 tapers prominently towards the mouth end; this feature has been

¹⁴¹ See Blinkenberg (1931, nos. 1259b, 1270, 1279) and Webb (1978 nos. 347, 362, 370, 581, 585) for instances where both pipes are intact, definitely cylindrical and identical.

also observed with Cat.176 (which we proposed that might represent a flute or a reedpipe player), although not to such a degree. It is probable that a single-beating reed is intended, although one could also argue for a duct flute (like the modern recorder, or the Cypriote folk flute known as *pidkiauli*) that would have a similar profile. The provenance of the figure is not known; Verlinden has proposed that it is of Cretan workmanship (Verlinden 1984, 169 n. 324), but Mitten & Doeringer (1968) argued that it is manufactured in some part of the Western Asia Minor (Ionia, Lycia, Caria or Phrygia). The figure could be compared with a Phrygian bronze standing male playing a sort of shawm (reedpipe with conical body or bell and double-beating reed) and also wearing a pointed, upturned cap and tunic like our Cat.176 (Fig. 3.28a).

4. IDIOPHONES

Instruments that produce sounds by means of vibration of the body of the instrument itself fall within the class of idiophones. It is the substance of idiophones that generates the sounds, “owing to its solidity or elasticity...without requiring stretched membranes or strings” (*Hornbostel-Sachs* 14). According to the way in which their matter is set into vibration they are subdivided into struck, plucked (*lamellae*), blown and friction idiophones. In this study we will only consider struck idiophones, for as yet there is no material or iconographic evidence for the other three kinds in Greece and Cyprus during the Early Iron Age.

With regard to aspects of playing action, struck idiophones are further subdivided into a) those *struck directly* by the player who applies clearly defined individual strokes and b) those *struck indirectly* as a consequence of the player’s movement, and which emit clusters of noises rather than individual sounds. Directly struck idiophones are categorised into *concussion* and *percussion*, according to the nature of the stroke. In concussion idiophones, the sonorous parts of the instrument are struck against each other and both vibrate, as in the case of cymbals and clappers. In percussion idiophones, the vibrating body of the instrument is struck with or against a non-sonorous object which does not vibrate, as in the case of bells, gongs, xylophones (percussion sticks), lithophones, metallophones (percussion plaques), percussion vessels and gourds. For indirectly struck idiophones the qualitative factor is not the various stroke types but the different sets of playing action that they employ. Hence they can be *shaken*, as is the case with the *seistron*, jingles and rattles, or *scraped*, as occurs with bone scapulae, wooden sticks etc. The great versatility in form, material and construction of idiophones not only allows various methods of sound excitement, but also results in a wide range of different timbres and sonority levels.

Material and iconographic evidence for idiophones appears rather late in the history of music despite the fact that they are simple in concept, their forms are rather effortless and their manufacture is often unsophisticated. In the archaeological record of the Eastern Mediterranean and Europe, most types are not attested before the second half of the 4th millennium BC.¹ This is many millennia after the first appearance of bone flutes, whistles and other aerophones, which are attested as early as the Middle Palaeolithic. The reason for this

¹ This is the case for shaken and concussion idiophones like rattles and clappers, but notched bones that might be scraped are known from as early as the Palaeolithic period and objects such as pendants could function as rattling sound devices (see below, chapters 4.3.1 and 4.4.1).

delay is not their late invention, but rather the opposite. The sounds produced by idiophones are so simple that initially they may have been made accidentally by a casual stroke of wooden sticks, bones or the shaking of a dried fruit. Such sounds must have been emitted in the course of everyday activities, and were gradually connected with specific tasks, happenings, people, situations and rituals; ultimately they were recognised as intentional sounds with musical and semantic qualities rather than as accidental noises. Idiophones are also believed to have eventually enhanced or replaced basic ways of rhythmic sound production such as hand clapping, body slapping and feet stamping, by employing extra-corporeal objects (*History* 25 ff.; Kunst 1959, 50-2; *Survey* 3, 16; Blades 1984, 32 ff.; Braun 2002, 47).

According to the axiom that “the more widely an object is spread over the world, the more primitive it is”, the world wide distribution of some types of idiophones such as rattles and scrapers indicates that they may be amongst the oldest instruments common to all humans, and hence are placed by Sachs at the earliest stratum of musical instrument evolution (*History* 62-3). The earliest idiophones were made of simple, perishable materials such as wood, stone, bone, bamboo or fruit. The ease with which idiophonic instruments can be made out of these materials without an extremely sophisticated workmanship has led scholars to believe that this class could be as old as one million years (Miller 2000, 348), thus their use in the Palaeolithic or earlier periods is “to be expected, if not proven” (Megaw 1966, 334). Their construction was eventually affected by technological improvements like pottery-making and metalworking, and, despite their essential simplicity, they developed into more elaborate, controlled and sophisticated creations made of valuable materials such as bronze, precious metals and ivory, which in turn deserved to be depicted in art.

The timbre and volume of the various types of idiophones differ due to their range of materials and playing actions; as a result, they offer a variety of sound effects which add to the musical character of a performance. On the other hand, the repetitive sound of invariable constant pitch closely relates idiophones to rhythm rather than melody. For this reason many scholars of ancient Greek music fail to recognise the truly musical value of idiophones. They refer to them not as proper musical instruments but as rhythmic devices of minor importance employed alongside orchestral chordophones and aerophones and restricted to the accompaniment of orgiastic dances for the cults of Dionysos and Kybele. Conspicuous types such as bells and rattles are usually seen as mere noise-makers or toys with no acoustic significance, and their symbolic value (indicated by their frequent deposition in tombs and

sanctuaries) is thought to be devoid of musical considerations. Such views overlook the importance of the rhythmic element in music expression, creation, and performance and, as a consequence, disallow the establishment of the true status of idiophones in the musical instrument chart of the Early Iron Age Aegean.²

4.0 Idiophones and rhythm

Rhythm and tempo are in themselves elements fundamental for organising temporally acoustic, verbal or kinetic material. Music, as well as oral poetry, song and dance, is predominantly a temporal (or sequential) art; this means that it is created and perceived whilst its rhythmic and melodic elements are unfolded *consecutively in time*, and thus their patterned arrangement is revealed. Rhythm is intrinsic in any melody, providing the guidelines for the consecutive introduction of the various sounds and pitches in time. Musical pieces can have complex rhythmic patterns, including a series of alternated rhythmic motifs, or even diverse rhythmic and melodic sequences that appear synchronically; but even the simplest rhythmic arrangement of sound is adequate to create a particular flow and order in time, thus complying with a fundamental requirement of music making. In some cultures, like the Venda culture for instance, music is founded not on melody but on a rhythmical movement and it is the rhythm that distinguishes song from speech (Blacking 1976, 8).

Greek musical texts provide evidence that this bond between melody and rhythm was recognised by ancient music theoreticians and philosophers. Aristides Quintilianus remarks that it is the elements of rhythm that make clear the character of the melody, whereas notes alone, without any differentiation in their movement, are inactive and insufficient to represent the melody clearly.³ The words *rhythmos* (ῥυθμός) and *rhythmizein* (ῥυθμίζειν) when used

² Cf. for example Landels 1999, 81 “The percussion instruments may be dealt with briefly, which exactly reflects their unimportance in the role of Greek music...The percussion sounds did not form part of the music in their own right”. Similarly *Aign* 128-9; Gomotti 1979, 74; *West* 122-3, 126; *NGDMM* vii, s.v. “Greece. I. Ancient” devotes only a short paragraph to percussion (663) and ²*MGG* iv, s.v. “Griechenland” does not refer to them at all. Contra Younger (*Aegean*, 8) and Mikrakis 2000, 164 who advocate the importance of the rhythmic element in Minoan music, exemplified by the *seistron* performance depicted on the Harvester Vase from Agia Triada.

³ Arist. Quint. *De Musica* p.31.10-13 (*GMW* ii, 434). For this reason, rhythm was regarded as “male” feature and melody as “female” (*GMW* ii, 445). The negative and unpleasant effects of a musical performance that failed to keep the rhythm are also noted by ancient authors (*West* 130, n. 4).

in a music context from the end of the 5th century onwards refer to the musical rhythms, the measured structuring of melody, words and body movement.⁴

Ancient Greek thought also refers to *rhythmos* (ῥυθμός) in order to describe the general concept of structuring matter (*GMW i*, 225 n. 131). This notion prevails even in purely musical works by music theorists, such as the Aristoxenian *Elementa Rhythmica* (late 4th century BC) where musical rhythm is perceived as the process of giving shape to the undifferentiated *chronos*.⁵ Aristides Quintilianus (1st century AD) informs us of three natures of rhythm that embrace most aspects of human perception: one for motionless bodies (for example, a eurhythmic statue), one for things that move and one in a musical sense for the particular sound division.⁶ In essence, the three types of rhythm describe two overlapping dimensions, the temporal and the spatial, with good order being the underlying key to the discourse. Movement is the physical state that can best reflect both temporal and spatial organisation, and this is how musical rhythm is described by music theorists: as organisation and order of movement in time.⁷ In the Pseudo-Aristotelian *Problems* we read: “We enjoy different styles of melody because of their moral character, but rhythm because it is

⁴ The diverse rhythms (dactylic, iambic, paeonic etc.) are based on sequential arrangement of short and long notes within the metric “feet” (a sort of bar equivalent) in a series of thesis-arsis movements. In poetry these rhythms are realised through the arrangement of long and short syllables of the lyric verses. In many cases the poetic metrical scheme corresponded to the rhythm of the musical phrases, but there were instances where the natural quantities of syllables were distorted for the sake of a particular rhythm (Mathiesen 1999, 40 ff.; *West* 132). Rhythm and metre was not one and the same thing (Aristophanes *Clouds* 638); rhythm was less rigid as it embraced the whole musical praxis and not just poetry, and so the prescribed metrical ratios of short and long notes would fluctuate in song and dance performance, and were not precisely measurable (*West* 135 n. 16; Mathiesen 1999, 339-40; Landels 1999, 122). Mathiesen points out that it is difficult to evaluate the extent to which music influenced the metre of poetic texts, and he maintains that, despite the deep connection between poetic metre and musical rhythm, the preservation of the former alone without musical notation is insufficient for our understanding of the full rhythmic shape and values of a choral lyric (Mathiesen 1999, 40 n. 43, 120-3; Fitton 1973, 269 ff.; but contra *West* 130 ff. who elaborates on the rhythms that we can deduce from poetic metre).

⁵ For general discussion and comments on the *Elementa Rhythmica* see *GMW ii*, 185 ff., Pearson 1990, Mathiesen 1999, 334 ff. with bibliography. For a plausible connection of the Aristoxenian “shaping of time” with the Platonic theory of forms see Fitton 1973, 271 and Mathiesen 1999, 337, n. 99.

⁶ Arist. Quint. *De Musica* 1.13, “Ῥυθμός τοίνυν καλεῖται τριχῶς· λέγεται γὰρ ἐπὶ τε τῶν ἀκινήτων σωμάτων (ὥς φάμεν εὐρύθμον ἀνδριάντα), καὶ πᾶντων τῶν κινουμένων (οὕτως γὰρ φάμεν εὐρύθμως τινὰ βαδίζειν) καὶ ἰδίως ἐπὶ φωνῆς”; the idea of various types of rhythm was much older (Mathiesen 1999, 336 n. 98).

⁷ Plato *Laws* 665a, “The name for order in movement is «rhythm», and order of the voice where high and low are mixed together at once, is given the name «harmonia», while the combination of the two is called «choreia»” (trans. *GMW i*, 149). Also note the etymological derivation of rhythm from ῥέω meaning “to flow”. Fitton maintains that rhythm is primarily a body movement which is subsequently reflected in poetry and its metres (1973, 270).

characterised by a recognisable and orderly number, and moves us in an orderly way. Orderly movement is in its nature more closely akin to us than disorderly, and so is more natural”.⁸

Musical rhythm is inclusive of the concepts of order, measure and proportion, which govern Greek thought in general, from aesthetics to political and philosophical theories. So, apart from its musical meaning, the words *rhythmos* and *rhythmizein* also denote order in the broadest sense possible, from private life to the whole universe, as a force that confines and regulates the whole of nature and mankind.⁹ In this sense rhythm is associated with *harmonia* (ἁρμονία), the general term for orderly melodic relationships based on mathematic arrangement of ratios and intervals (harmony).¹⁰ For the Pythagoreans, as for Plato and the philosophers or theorists who echo their words, the cosmos is created on the basis of “musical fitting together” (ἁρμονία) and the application of harmonic analysis can explain the ordering of nature.¹¹ Therefore, both rhythm and harmony are elements recognised in nature, moulding the order of the cosmos.

In essence, rhythm underlies all motor and vocal/sound behaviour; it is the primordial expression of life inherent in man and experienced from the beat of the mother’s heart (Dissanayake 2000). Modern research on biomusicology, neurology, evolution and language has shed new light on the significance of rhythmic arrangement in the process of communication, language creation and learning, as well as in social integration and interaction.

⁸ Ps-Arist. *Problems* XIX.38 (trans. *GMW i*, 199-200). Here it is conjectured that order is a feature of nature.

⁹ This idea is expressed already in the 8th-7th century BC by Archilochus, fr. 67a.7, “γῖγνωσκε δ’ οἶος ῥυθμός ἀνθρώπους ἔχει”. Plato remarks that good rhythm (εὐρυθμία) and good attunement (εὐαρμοστία) are mandatory in the lives of men (*Protagoras* 326.b.5-6, “πᾶς γὰρ ὁ βίος τοῦ ἀνθρώπου εὐρυθμίας τε καὶ εὐαρμοστίας δεῖται”; see also Seebass 1991, 12 n. 2).

¹⁰ Philosophical works investigate intervals of time as well as the intervals in music that determine pitch. The proportional ratios assigned by Plato, Aristotle, Aristoxenus and others to rhythm are similar to the harmonic ratios 1:1, 1:2, 2:3 etc. (*West* 131, 244 ff.; *GMW i*, 133 no. 35).

¹¹ Ps-Plut. *De Mus.* 1147a “...the motion of that which is, and the movement of the stars, come about and have their constitution through the influence of music: everything, they [the school of Pythagoras, Archytas and Plato] say, was constructed by God on the basis of *harmonia*” (trans. *GMW i*, 248-9 and n. 261). The idea that all regular motion produces sound was fundamental in Greek philosophical thought; the Pythagoreans believed that the movement of the stars followed specific harmonic ratios (relevant to the ratios of the Pythagorean musical system) and produced music, the so-called “harmony of the spheres”. In associating the motion of planets with music, Pythagoreans were in line with Babylonian and Chinese musical thought (Kartomi 1990, 115).

Rhythmical organisation is basically a by-product of the phenomenon known as *redundancy*; this is characteristic not only of music but also of related continuing processes such as language and discourse and other temporal arts like dance and oral poetry. Repetition, formularisation and expectancy are the three main redundancy devices which govern music making; by repeating melodic/rhythmic motifs a high level of fixed patterns (formulae) is achieved, which in turn are anticipated as they have become part of a collective knowledge or experience (Meyer 1956; Schutz 1977; Sloboda 1985; Blacking 1992; Richman 2000).¹² From the stock of known patterns new combinations are likely to emerge, which in turn become familiar through repetition and thus increase the number of anticipated formulae.

It is a fact that such a process requires interaction, which indicates that it occurs through *group activities* where, in effect, individuals need to be in synchrony with the other members of the group in order to stay involved and become integrated (Blacking 1973; Nettl 1983; Sloboda 1985; Richman 2000). Integration is a key point in human and animal survival alike, and it is largely achieved by the rhythmic organised patterns that condition the sound, movement and vocal communication process. Repetition and synchronism, in other words adherence to set rhythmic patterns, facilitate interaction and eventually allow group participation and bonding and lead to group behavioural conditioning (Merriam 1964; essays in Wallin, Merker & Brown 2000). This conditioning could not be achieved if humans did not have the neural propensity to respond cognitively and emotionally to temporal patterns produced by other humans in order to confirm unity and affiliation; rituals are established in exactly this manner, as interactive patterned temporal sequences that embody enculturation and structure feelings (Dissanayake 2000; Freeman 2000). The practice of rituals, especially of those highly differentiating rituals that transform a generalised mass of people into a particular community, is grounded in specific concepts that forge the group identity. The relationship between ritual performance and the ideas behind it is twofold and reciprocal, and both aspects, the kinetic and the conceptual, are brought about by “rhythms of social interaction” (Blacking 1976, 4).

Additional research on animal and human behaviour has provided more information on the effect of rhythmic organisation on social efficacy and interaction. It has been shown that chorusing synchrony as well as behavioural synchrony (typified *par excellence* in motion co-

¹² Also compare the evaluation of repetition and formulae in related theories regarding the creation, performance and transmission of oral poetry (Lord 1960; Nagy 1996; essays in Wace & Stubbings 1969; Morris & Powell 1997).

ordination and aerobic capacity, namely dance) is observed in nature in the context of sexual attraction strategies which serve as ground for group competition (Merker 2000; Miller 2000). Performance of motor co-ordination patterns is believed to have preceded and encouraged vocal synchrony, which in turn set the foundations for the emergence of language and discourse in hominids (Richman 2000). Furthermore, the relationship between communal (patterned) movement and conceptual thought has also been suggested as the driving force behind human evolution and technical advancement (Blacking 1976). In this view, rhythmic organisation (what Blacking calls “proto-dance” or “proto-music”) permeates all forms of bodily movement, including those implemented for the creation of tools. Bodily movements do not just sent out messages but embody actual ideas about the world (conceptual thought) that brought them about. The structural organisation of objects, that comprises both aesthetics and technical efficacy, directly results from the combination of thought and patterned movement.¹³

Recent evolution theories have proposed a theoretical model of multiple intelligences that affect and control human perception of the world; according to this model, a certain region of the brain is responsible for functions such as drawing people together in association, coordinating the different modes of thought of the two brain hemispheres and allowing imagination to thrive. These functions have been grouped under the type of “Musical Intelligence” as they show affinities with elements characteristic of rhythmic organisation and its ultimate manifestation, music making (Gardner 1983). As Miller notes, “Rhythm may reveal the brain’s capacity for sequencing complex movements reliably, and the efficiency and flexibility of its central pattern generators” (2000, 340). Its biological value lies in facilitating more effective action with less expenditure of energy and is manifested in physical feats like virtuosic instrumental and dance performance.

Ancient thought, like modern theories, also recognised that rhythm was the key element that would aid and guide members of the community to operate competently. In the Spartan

¹³ Compare with the abovementioned ancient notion of rhythm characterising motionless bodies as reported by Aristides Quintilianus, an idea most obviously concerned with aesthetics. The use of the word “rhythm” and its derivative “εὐρυθμος” in order to describe aesthetic values could imply a similar connection of bodily movement with the material product and the communal concepts regarding orderly arrangement. For a general discussion on aesthetics as an expression of communal thought (consensus) see chapter 2. Along the same lines, if rhythm and its products are the crystallisation of conceptual thought, they can also reflect other conceptual constructs such as emotional and mental states, in other words, feeling and ethos. This principle is affirmed by the fact that Plato ascribed ethical values to the various rhythms and so they were endowed with degrees of educational importance, as a means of creating and maintaining communal ethos.

educational system music and dance had a fundamental role in the making of a great warrior, as it promotes health, beauty, harmonious physical development and co-ordination (Anderson 1966; Lawler 1964, 125; Lonsdale 1993, 137 ff.; Constandinidou 1998). The redundancy mechanisms in music and dance performance also became the means for war training, especially with war dances like the *pyrrhiche* (πυρρίχη) that was mimetic of the combat movements. A verse of Socrates claims that those best at dancing for the gods are also best at war, and the lyric poet Alcman claims that the skill of playing the lyre can rival that of using the arms.¹⁴

Past scholarship has dealt extensively with technical issues of metre and rhythm in Greek literature and their connection with music and dance performance.¹⁵ In the absence of musical notation, the metric formulae of the text in combination with the word accent are the only clues we usually have on the melody of a lyric. Attempts to reconstruct melodic passages hypothetically from metre and word accent demonstrate the intrinsic importance of rhythmic organisation, pattern and repetition in music.¹⁶ However, despite the unanimous agreement that rhythm is essential for musical performance and in sharp contrast with the focus on metric analysis in literary studies, the rhythmic support offered by idiophones and membranophones (usually referred to collectively as “percussion”) in performance arts is usually considered to be musically inferior and secondary. Support for this view is often derived from particular literary passages that “prove” the non-musicality of percussion instruments and demonstrate the low esteem in which they were held; for example, a passage in Aristophanes’ *Frogs* 1304-07 contains an insult to Euripides’ songs, as it suggests they would have been accompanied by the banging of pottery or shell (ὄστρακα) like castanets.¹⁷ Although Aristophanes’ comment has been usually cited as evidence for the low status of percussion, it clearly demonstrates that the insult was not directed against the idiophone instrument, but against songs with ill-organised rhythmic values and unbalanced rhythmic structure (uncomplicated or too-complicated), and above all, songs deprived of a proficient performance by a skilled

¹⁴ Athenaeus *Deipnosophistae* XIV.628f; Alcman *fr.* 41.1.1; Plutarchus *Lycurgus* 21.4.5-8. Note that the fierce war god Ares was said to be a dancer before he became a warrior, and that Athena, who exemplifies wisdom in war and life in general, also danced immediately after her birth (Plato *Laws* 7.796.a; see also Fitton 1973, 257 n. 5; Kauffmann-Samaras 1972, 29; Constandinidou 1998, 17 n. 10).

¹⁵ See Georgiades 1949 and 1956; Sachs 1953; West 1982; Mathiesen 1985; relevant chapters in West, Landels 1999 and Mathiesen 1999 with comprehensive bibliography.

¹⁶ See for instance the re-creational process followed by West for the musical accompaniment and melodic recitation of the Homeric epics (West 1981).

¹⁷ Barker takes the word “ὄστρακα” to indicate a proper percussion instrument, like a castanet, made of pottery or shell. However, it could just denote bits of pottery or shells struck together in imitation of the actual instrument, as is mentioned by Athenaeus *Deipnosophistae* IV.636a; see *GMW* i, 115, 298.

percussionist.¹⁸ The remarkable technical skill and agility required to play clappers and castanets is admired by a 17th century AD writer (Blades 1984, 194) and there is no evidence that the ancients held a different view.

Rhythmic efficacy is not inferior to the allure of the melody in the creation of a captivating and exalting artistic result. In fact, poets often liked to combine more than one rhythm in a song rather than have the same beat throughout. Multiple rhythms were the traditional characteristic of lyric and sophisticated music making until the 5th century.¹⁹ The fact that the Greek language (at least before the 3rd century BC) did not have stress-accent corresponding to the thesis movement, but had pitch-accent which could occur in either the thesis or the arsis, suggests that although rhythm was inherent in the verse due to the long/short arrangement of syllables, beat was not (Fitton 1973, 272; Landels 1999, 112 ff.). Therefore it would seem essential in a lyric performance to consciously mark the beat by means of hand clapping, body slapping or using idiophones, and this is often seen in 8th and 7th century dance representations. Mathiesen points out that “the percussion could easily sound multiple simultaneous patterns, such as the contrast between the rhythmic and metric patterns that frequently appears in the musical fragments, or a dynamic distinction between the arsis and thesis of various rhythmic feet” (1999, 162-3). Ethnomusicologists have noted cultures where the various rhythmic elements can be assigned to different idiophones and percussion instruments that perform simultaneously and the dancers have to follow each rhythm with the different parts of their body (Hanna 1998, 324).²⁰

Great artistry is only one of the aspects relevant to the issue of rhythmic complexity. The vitality and dynamism of multiple rhythms is an important element in the music accompanying the rituals of various tribes today as it can incite exuberance beyond the normal levels, and this potential could hardly have been missed by the Greeks. It is the essence of rhythm to re-structure time, being practically a new “organisation of time”; musicians, dancers

¹⁸ I agree with Barker’s interpretation of the proverbial phrase “singing to the ostraka” as indicative of ugly music and *not* as devaluing percussion (*GMW i*, 115, n. 65; contra Landels 1999, 81). The appreciation of the flowing rhythmic patterns of percussion is reflected in another proverbial phrase that describes a witty and articulate person as “talking like the *krotala*” (*Suda Lexicon*, “...τὴν φωνὴν διηρθρωμένος, καθάπερ τὰ κρόταλα· ἀντὶ τοῦ εὐγλωττος, εὖστομος”).

¹⁹ This was the so-called “old music”, as opposed to the later “new music” that had a tendency to ornamentation and predominance of complex melody over word accent (*West* 356 ff.).

²⁰ Contra West, who is sceptical of the importance awarded by scholars to the marked beat in Greek music, because evidence from ethnomusicological research on exotic musical cultures reveals a lesser degree of accentuation (134), and because of his observation that old Indo-European metric forms display a great degree of freedom, reminiscent of the aeolic verse which “did not lend itself to bar-divisions” (*West* 147-8).

and audience are all participants of this new order and collectively share a new state of consciousness (Needham 1967, 610 ff.; Hanna 1998). Persistent repetition of multiple or simply vigorous rhythms is inductive and turns the alternative reality into the principal state of consciousness. Such is the state of trance experienced through ecstatic dancing which is a common religious practice worldwide. In Greece such dances were performed during initiation rites and mysteries as well as during fertility rites and related cult festivals. They were associated with the Great Mother, Artemis, Demeter and Persephone (Eleusinian Mysteries), Dionysos, Bacchus, Rhea (in Crete), Kybele (in Asia Minor and the Near East), Hecate and the Orphic rites (Lawler 1964, 92 ff). The whole experience of high physical flexibility and sensitivity was thought to be a consequence of “having the god within oneself”, the so-called “enthousiasmos”.²¹

Rhythm and dance had an effect upon the by-standers who succumbed and joined in. As Rudhardt points out:

“La danse exprime un sentiment et, en exprimant, l’intensifie; la danse collective en outre le généralise: les mêmes gestes répétés au même rythme par tous les danseurs leur inspirent une émotion commune et font régner parmi eux un état affectif qui tend à s’imposer même aux spectateurs.” (Rudhardt 1992, 146)

Idiophones of all types (but with particular emphasis on percussion) are the constant accompaniment of ecstatic dances. In Archaic and especially in Classical iconography we see beating cymbals, clappers/castanets, drums (*tympa*) and shaking thyrsos along with blowing flutes, horns and occasionally twirling bullroarers.²² It is in this performance context in particular that idiophones should be granted major significance as a means for ordering rhythm and altering consciousness. Here they are not a simple accessory or supplement to

²¹ Crete and Asia Minor were traditionally considered the origin of ecstatic dances and mystic rituals (Neubecker 1986, 98). Lawler sees in the ecstatic dance what she calls “dance-mania”, the expression of a universal desire to free the spirit from the body and the sorrows of everyday life and unite it mystically with the deity. She maintains that dance-frenzy is brought about as a reaction and cure, especially in times of hardship and, following that, she proposes that such dances flourished in the disruptive years of the Mycenaean period, as is attested by the appearance of the name of Dionysos in Linear B (Lawler 1964, 50-1, 96).

²² The abundance of percussion idiophones from Israel/Palestine is considered to be indicative of “music extremely emotional and perhaps even orgiastic” (Braun 2002, 71). Idiophones, however, are not present in depictions of Minoan-Mycenaean dancers that are usually interpreted as orgiastic (see previous note). Neither can we see any instrumental accompaniment on the earliest Iron Age depiction of a maenad-dance recognised by Webster on a mid-8th century pyxis in Boeotian style, allegedly from Keos (*Tölle* 52 no. 130, pl. 26b; Ruckert 1976, 97 no. FP8; Vienna Kunsthistorisches Museum IV.3458). It depicts frontally arranged female dancers with frills hanging from the waist (short skirts?) and loose hands; their posture does not suggest manic possession with the head flicked back as on the Archaic-Classical representations, but according to Webster it emits a trance-like feeling (Webster 1970, 8 no. 46, 53).

dance but the essential *generators* that precipitate the orgiastic dancing of the Maenads and Bacchantes, a behaviour which is totally incited by the overwhelming powers of rhythm.²³

The experience of being initiated through rhythm and dancing was described by ancient authors as profoundly affecting (Lawler 1964, 94). In fact, the possession by rhythm was considered so powerful that it was attributed magical powers. Hence wild animals were tamed by the song of Orpheus or the drumming of Kybele (*Anthologia Palantina* 6.217) and Thebes' walls were built by the sounds of Amphion's lyre. More specifically, music had healing powers (*Il.* 1.472-4; Plutarch *De musica* 1146c) and the orgiastic dance of the Korybantes in particular could cure maladies (Plato *Laws* 7.790d). Most importantly, by means of dance rituals the fields were fertilised (see West 1965 on the Dictaeon Hymn to the Kouros) and possibly heroes could be invoked (Kauffmann-Samaras 1972, 30). Rhythmic patterned behaviour, whether dance, song or playing an instrument, would ensure supernatural intervention as a means to resolve problems and overcome difficulties; in reality, it meant strong group bonding and perfect emotional co-ordination generating the feeling of community, unity and security.

The experience of group-synchrony is intensified when the movement is vocalised with accompanying sounds. In this sense it is not melody that matters, but the sheer rhythmic awareness and the sensation of percussion reverberations that have an affective impact on the body.²⁴ Playing the aulos or the lyre might offer a more sophisticated melodic aspect, but using idiophones, beating the shields or simply a metal or wooden object, served just as well, if not better, for they accentuated the focus on rhythm and are therefore connected with emotive and psychological factors. For this reason, idiophones and percussion are the constant accompaniment to a wide range of important situations such as birth, initiation, marriage, death, war, accession to office, sacrifice and others (see relevant entries in *Survey*; Needham 1967, 611).

This emotive effect of rhythmic movement combined with sonorous sounds was eventually regarded as the *ultimate prophylactic/apotropaic action*. Myth has it that the infant Zeus was protected from Kronos because his cries were covered by the loud and rhythmic noise made

²³ See also Needham's comments on the instructive drumming that provokes dissociation of the shaman dancers from Haiti (Needham 1967, 613 n.1).

²⁴ Needham compares the bodily effects of percussion with those of natural explosive noises that vibrate the environment (such as thunder for instance); he argues that such sounds create "aurally generated emotion" and this is the reason they are employed in so many rites of diverse character, and especially in rites of passage marking the transition from one stage to another (Needham 1967, 611).

by the nature-spirits, Kouretes and Korybantes, as they were dancing beating their shields or clashing *krotala* (clappers) (Sch. Soph. *Ajax* 699e.4). Similarly, Heracles frightened off the Stymphalian birds with bronze clappers given to him by Athena and manufactured by Hephaistos. Such notions must have led to the practice of beating bronze (or metal in general) in antiquity and the Middle Ages in order to avert evil both in everyday life and in the course of purification, funerary and other rituals (Cook 1902, 14-6; Schatkin 1978, 156-7; Villing 2002). The expiatory rites for a murderer included the clash of bronze, because its purity emitted power that could purify (Apollodorus *Fr.* 38). Percussion was also employed in funerals; in Crete the noisy armed dance “*prylis*” was performed by the funeral pyre,²⁵ whereas bells are often found in Greek and Cypriot graves (see Appendix II-Bells and chapter 4.2.2). Furthermore, the Pythagoreans thought that the sound of bronze, when beaten, would emit the voice of a demon trapped inside (Aristotle *fr.* 196); hence a spot was sanctified in the name of chthonian Artemis by banging a bronze object (Theocritus ii.36).

These examples indicate the way in which the fundamental action of percussion and marking rhythmic synchrony evolves into the concepts of *purification*, *divine presence*, *protection* and *sanctification of a location* by means of sounding bronze. Consequently, noisy bronze idiophonic instruments were included in ritual. Apart from the use of idiophones in ecstatic dancing, the most celebrated ritual use of bronze-produced idiophonic sound was at Dodona, where the sound of the “Δωδωναῖον χαλκεῖον” protected the precinct of the sanctuary of Zeus (Cook 1902). Idiophonic instruments as well as bronze votive hands holding cymbals, bells and clappers were also dedicated in sanctuaries (Cook 1902, 16 n. 6-7), indicating the prophylactic and magical associations of beating the rhythm on metal. I believe that the origins for these notions are to be found in the emotive character of percussion (using any material available) to mark group synchrony and bonding, and the importance of the metal/bronze substance was a later phenomenon, as a result of technological improvements and the significance of metal in Bronze Age societies.

Apart from the strong cultic and magical connotations, there was also a civic aspect to rhythm and percussion. In the Panhellenic Greek festivals, like the one on Delos for instance, the rhythmic versatility of the songs acquired a broader, political significance. Professional musicians and well-trained choruses were sent from their cities to perform and represent their

²⁵ For *prylis* and *pyrrhiche* as initiation dances but also for their link to funerals see Ceccarelli 1998 and the discussion in Stehle’s review (Bryn Mawr Classical Review 2000.03.17).

communities (Anderson 1994, 59).²⁶ The latter was done much more successfully through the effect of their music (song and dance, and their patterned arrangement), the ethos and proficiency of which reflected their patterned community (Rudhardt 1992, 147). From the Homeric *Hymn to Apollo* it is conjectured that different rhythms could evolve locally and thus represent different ethnic groups (Webster 1970, 55; *GMW i*, 40 n. 4; Mathiesen 1999, 84, n. 120). These rhythms would be marked out by the clapping of percussion idiophones such as the *krembala* (κρέμβαλα, clappers/finger cymbals) or the cymbals, and therefore they are collectively referred to as *krembaliastun* (κρεμβαλιαστύν) in the hymn.²⁷ In this context the performance of idiophones becomes the hallmark for ethnic and political identity as well as the means for an outstanding musical performance, which was so sought after by the communities participating in the large festivals of panhellenic significance.

Within the confined domestic context idiophones played an equally fundamental role in introducing small children to the concepts of rhythm and synchrony, group identification and body control. Aristotle remarks on the educational qualities of *platage* (πλαταγή), an idiophone of some sort (in all probability a kind of clapper or rattle) designed to entertain infants (Aristotle *Politeia* 1340.b.26 ff.). In this passage Aristotle is concerned with musical education in general and maintains that engagement in musical activities at a young age is the best method of teaching youth to recognise what kinds of behaviour and morals are accepted by the communal consensus and what are not. Although teaching methods are not discussed in detail, the text suggests that introducing rhythmic diction by playing the *platage* was the first step for children's musical and communal participation.²⁸ It is important to note that Aristotle is not concerned with the making of a virtuoso musician, but with the shaping of an impeccable citizen whose music making will accompany his engagement in war, politics and civic social events; therefore he dismisses a professional-technical education in instrumental performance which is designed to promote pleasure and not virtue. In the context of his proposed civic-oriented education, his reference to the way in which the playing of an idiophone establishes the first grounds for social interaction is of major importance.

²⁶ For a discussion on the form and function of Greek chorus see Calame 1972.

²⁷ In *Apollinem* 162-4, “κοῦραι Δηλιάδες....πάντων δ' ἀνθρώπων φωνὰς καὶ κρεμβαλιαστὺν μιμῆισθ' ἴσασιν· Φαίη δὲ κεν αὐτὸς ἕκαστος φθέγγεσθ'· οὕτω σφιν καλὴ συνάρηρεν ᾠδὴ”.

²⁸ Aristotle, *Politeia* 1340.b.30-2, “....ἡ δὲ παιδεία πλαταγὴ τοῖς μείζοσι τῶν νέων. ὅτι μὲν οὖν παιδευτέον τὴν μουσικὴν οὕτως ὥστε καὶ κοινωνεῖν τῶν ἔργων, φανερόν [ἐστὶ]....”. Compare with an Egyptian Middle Kingdom representation where children are instructed in seiston playing and hand clapping (*MiB- Ägypten* 50, figure in text).

Granted the significance of rhythm in both the religious and the mundane spheres of action, it becomes apparent that the role of idiophones in marking the time and co-ordinating performance is not a humble task. Neither are they simply an accessory to dance, because they take on the symbolic and affective values of rhythm which have been discussed in the preceding analysis. It is true, however, that idiophones and percussion have not received as much attention from ancient writers and music theorists as chordophones or aerophones have. Percussion is not included in the musical instrument classificatory system of the Greeks that, since the age of Homer, favoured two categories: string and wind instruments (Kartomi 1990). Percussion is usually mentioned in passing, in connection with the performance context of music making, and not in texts concerned with music theory. It is only membranophones that in post-classical thought were assimilated with strings on the basis of the theoretical principle that the stretched membrane is an extended form of string;²⁹ in this way both were associated with the “harmony of the spheres”, strings by representing the lines and membranophones by representing the surfaces of the planetary orbits. This interconnection is later exemplified by Pollux, who classified instruments into percussion and wind, where the category of percussion also included string instruments. Apart from the philosophical justification already mentioned, the logic behind it was that the method of excitement was regarded the same: striking either a membrane or a string (Kartomi 1990, 119-20; Mathiesen 1999, 162). But idiophones proper still remained outside this classification, and are unmentioned until the 1st-2nd centuries AD, when “noise-making instruments” briefly appear as a separate category in the instrumental corpus.³⁰

Again, this fact has been regarded as indicative of their low status, but the main reason for their omission could be that they were *not* essential for the philosophical theorising about music which was the basis for the ancient Greek musical classificatory system. Music in general and the acoustics of the *aulos* and the lyre in particular, were discussed primarily in connection with philosophical speculations on universal harmonic ratios, and consecutively through physical observations on the concordant intervals based on these ratios, as these intervals could be produced by chordophones and aerophones. In the same context, the

²⁹ Arist. Quint. *De Musica* 2.18.1 ff., “Τί δὲ θαυμαστόν εἰ τοῖς κινουῦσι τὰ ὄργανα, νευραῖς τε καὶ πνεύματι . . .”.

³⁰ Athenaeus *Deipnosophistae* 14.636d “ἦν γὰρ δὴ τινα καὶ χωρὶς τῶν ἐμφυσωμένων καὶ χορδαῖς διειλημμένων ψόφου μόνον ποιητικά, ὥς τὰ κρέμβαλα....”.

philosophical concept of rhythm was associated with universal *harmonia* and it was therefore addressed with reference to song and dance which embodied rhythm and offered the physical realisation of abstract ratios entangled in the rhythmic and metric patterns of the lyric. In other words, the rhythmic/metric form of the songs itself was the field where rhythmical ratios equivalent to harmonic ratios could be discussed. Consequently, idiophones never found a place in the philosophical debate on the “theory of the spheres” or in the discussions preoccupied with rhythm and ethos.³¹ Furthermore, indefinite and continuous sounds (like the idiophonic ones) were regarded as paraphernalia of the speaking voice, as opposed to the definite and discontinuous sounds that were considered melodic (Kartomi 1990, 114; compare the meaning of *κρεμβαλιαστύν* discussed above). For these reasons, the sounds of the idiophones were not addressed because their indeterminate pitch could not be of any service to the issue of harmonic ratios.³² As a result, idiophones received little mention in philosophical-music texts but were amply referred to in lyric and religious hymns in connection with related divinities, due to their cultic connotations and semantic value.

In the light of our discussion it is clear that the evidence does not support the prevailing scholarly view of the low status of idiophones. Idiophones play a fundamental role in actions that satisfy the primordial need for group bonding and identification exemplified in fertility, funerary and initiation rites. As a consequence, their use worldwide is connected to primordial magical beliefs and they are perceived to have apotropaic powers or even divine character. Both the archaeological record and numerous comments of ancient authors and poets demonstrate that idiophones were deeply rooted in ancient Greek cult practices, religious rites and related musical performances, a fact that also endowed them with subtle civic connotations. In general, it is certain that idiophones were highly valued in popular culture and religion, although certain types were more exalted than others and became emblematic of divinities. The iconography of idiophones and their performance can reveal more information on this subject.

³¹ The only exception is Aristotle’s passing comments on the educational importance of Archytas’ *platage* discussed above; nevertheless, although Aristotle remarks on the ethical values of rhythms, he makes no connection with the performance of rhythms by idiophones.

³² There are only two exceptions: the experiments by the Pythagorean Hyppasus of Metapontum on the concordant intervals produced by metal discs of different thicknesses and those of Lasus of Hermione on intervals produced by vessels part-filled with liquid (West 128, 234; Michaelidis 1989, 100). Note that neither of them is concerned with rhythm but both examine pitch, in the context of the general preoccupation of Greek theorists with harmony.

4.1 Idiophones struck directly – concussion

4.1.0 Classification and terminology

Concussion idiophones consist of at least two parts that are struck against each other. They can be constructed from practically any sonorous material, but are most often made of wood, bone, ivory, metal and shells (nutshells or marine shells). They can take the form of sticks/rods (straight, crescent-shaped/bent, boomerang-shaped), plaques (usually rectangular), or vessels (castanets and cymbals).³³ There are three variations in construction and playing technique:

(a) Two-hand clappers: two separate pieces (sticks/rods, plaques or vessels), held one in each hand, struck against each other (cymbals, concussion/clapping sticks/rods).

(b) One-hand clappers: two pieces (plaques or vessels) held and clapped against each other in one hand, usually hinged together near the grip; in this way two pairs can be sounded at the same time (clappers, castanets). One variation consists of small cymbals attached to the end of wooden or metal prongs (branches/tongues), which produce a sharp metallic sound (forked cymbals, Latin *scabellum*, fig. 4.2c). Alternatively, small cymbals are not hinged, but attached to the middle finger and thumb (finger cymbals).³⁴

(c) Two or more pieces (plaques/vessels) hinged to a larger central piece and shaken by a handle (mounted clapper/castanet); the flick of the wrist causes them to strike against the central piece and each other (fig. 4.1).³⁵

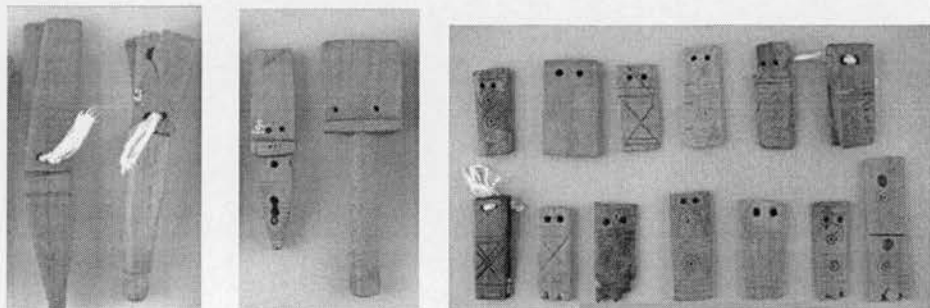


Fig. 4.1: Clappers [Variation (c)]. Left to right: complete mounted clappers, clapper handle and central piece, clapper plaques. From Karanis, Egypt. 2nd-4th century AD. Kelsey Museum (Source: <http://www.umich.edu/~kelseydb/Exhibitions/MIRE/Objects>)

³³ *Hornbostel-Sachs* 14; *NGDMI i*, s.v. “Clappers”, 387; ²*MGG v*, s.v. “Klappern” 170.

³⁴ Another adaptation known from Roman depictions resulted in a concussion instrument played with the foot; it consisted of metal discs placed between two flexible plaques that collided when the foot was stamped as they were attached underneath the sole (κρούπαλον or κρουπέζιον; Bélis 1988; ²*MGG v*, s.v. “Klappern” 171 fig.1. For a possible Hittite antecedent see *NGDMM iv* 392.

³⁵ *Survey* 4; this type is found in Late 1st millennium in Egypt, mainly known from Coptic religious rites (*NGDMM vi*, 72).

Ancient Greek terminology of concussion idiophones is rather ambiguous. Only κύμβαλα (*kymbala*) are clearly distinguished and identified with cymbals without any doubt.³⁶ The earliest evidence for the word is found in the *Iliad*, and the scholiast explains that it is used in order to describe the sound of the metal weapons clashing against each other when a chariot overturned.³⁷ Although no detailed description of *kymbala* is given in any of the ancient sources, in most cases their bronze substance (χαλκόδετος) and metallic sound (χαλκόκροτος) is stressed; Suda provides us with a little more information, referring to the high pitch and everted rims of the instrument.³⁸ Another name for cymbals, κοτύλη (*kotyle*), emphasises their characteristic concavity but the term occurs only once.³⁹

The other terms found in literary sources are often interchangeable and usually combine the meanings of clashing and shaking, which makes classification difficult; in addition, the descriptions in literature are not detailed and could apply to more than one type of instrument. These factors do not allow definite instrument identification with their Greek names.

Eustathius (12th century AD.) states that the general term κρόταλα (*krotala*) denotes objects made of pottery sherds, wood or bronze, which are struck in the hand and thus make noise.⁴⁰ This matches the general form of one-hand clappers or castanets consisting of two similar branches clashed against each other, and therefore *krotala* are identified with the analogous instruments that are attested in Greek iconography of the archaic and classical periods. *Krotala* as musical instruments are first mentioned in the 7th/6th century BC by Sappho (fr. 44.25). Slightly later references associate them with the Mother of the Gods, and are played in her honour along with tympana and auloi.⁴¹ From the fact that a Homeric simile employs the

³⁶ The word is a derivative of κύμβος (meaning “round, convex”). Note Xenophon *Eq.* 1.3.10 where he compares the sound of the concave horseshoe on the pavement with that of a cymbal.

³⁷ *Il.* 16.379, “δίφροι δ’ ἀνακυμβαλίζον”.

³⁸ Suda *Lexicon* “Κύμβαλα, θυμελικά παίγνια. ἐν’Επιγράμμασι· καὶ κύμβαλ’ ὀξύδουπα, κοιλοχείλεα”.

³⁹ Athenaeus *Deipnosophistae* 11.57 [Eustath. *Hom. Il.* 10.494], “κύμβαλα δ’ Αἰσχύλος ἐν Ἡδωνοῖς “κοτύλας” εἴρηκεν”. Other synonyms for cymbals are *bakylon* and *baboulion* mentioned by Hesychius s.v. “κύμβαλον”.

⁴⁰ Eustathios *Hom. Il.* 3.176.10-12, “σκεὺ δέ τινα τὰ κρόταλα, ἐξ ὀστράκου τυχὸν ἢ ξύλου ἢ χαλκοῦ, ἃ ἐν χερσὶ κροτούμενα θορυβεῖ”. The word is a derivative of “κρότος” (blow that resonates); root *Kret, Sanskrit *kaṭakāṭa* (noise of two objects that collide), *kṛntāti* (to divide, cut across), Anglo-Saxon: *hrindan*, *hrand*, *hratt* (Boisacq 1950, 521; Chantraine 1968-, 587).

⁴¹ See the Homeric *Hymn to the Mother of the Gods* (H14.3) and Pindar, *fr.Dith.* 70b.6.

word *krotalizein* (κροταλίζειν), it could be conjectured that the instrument was known much earlier.⁴² The ease to make such instruments is demonstrated by Athenaeus (*Deipnosophistae* XIV, 636d) who refers to rhythm-keeping by means of beating shells and bits of pot (ὄστρακα). The latter can probably be identified with Eustathius' clay *krotala*.

Suda refers to the *krotalon* (κρόταλον) as a reed split in such a way as to produce sound with a strong shake of the hand.⁴³ Similar instruments of the “split-tube” type are known from Anatolia, the Balkans and South-East Asia, where they are constructed by children and used as toys (Picken 1975, 43, pl. 7b). They are usually made of maize stems cut longitudinally into two or three tongues, sometimes retaining part of the stem below the knot as a handle (Fig. 4.2.a). It is possible that *Suda* might well be referring to a folk or toy instrument that was widespread and common among the people but at the same time, according to Picken's account of the modern folk equivalent, it must have been seasonal and extremely fragile. It is unlikely that such an instrument would be included in music-making proper or represented in art, but the fundamental concept of split tongues remains essential for the one-hand clappers which were made of long-lasting material. In particular, the evolution of the “split-tube” prototype can be clearly seen in the form of a clapper that, according to Hickmann, recalls primitive prototypes. This one-hand clapper consists of two tongues, either of equal length (in which case they are hinged at the bottom and there is no handle), or with one tongue being shorter than the other and attached to the middle of the longer one (in which case the longer branch also forms the handle) (Fig. 4.2.b). This is the fundamental form of forked cymbals, with small metal discs attached at the end of the tongues (Fig. 4.2.c). Consequently, scholars believe that, particularly in post-classical texts, *krotala* (κρόταλα) also stand for forked cymbals, a type that appears in the iconography of later periods (Hickmann 1949c, 536; West 125). Indeed, forked cymbals (and even finger cymbals as suggested by Hickmann) might explain better the few literary references specifying bronze *krotala*,⁴⁴ since only two possible bronze clappers have been found in Greece and Cyprus so far (CA.1, 2; Blinkenberg 1931,

⁴² See *Il.* 11.160 for the sound made by the parts of chariots as they clash against each other. The verb *krotalizein* naturally indicates the playing of *krotala* (Herodotus *Hist.* 60.4), but is also used to describe the clashing of cymbals (Nonnus *Dionysiaca*), the making of loud noise in dancing (Sch.Soph. *Ajax* 669e.4), the chattering sound of laughter and the noise of big crowds (Eustathios *ad Od.* 1.5.4).

⁴³ Suda *Lexicon*, s.v. “κρόταλον”, “ἰδίως ὁ σχιζόμενος κάλαμος καὶ κατασκευαζόμενος ἐπίτηδες ὥστε ἡχεῖν, εἴ τις αὐτὸν δονοίη ταῖς χερσὶ καθάπερ κρόταλον ἀποτελῶν”.

⁴⁴ For bronze *krotala*, in addition to Eustathius' definition, see Euripides, *Cyclops* 205; Pseudo-Apollodorus *Myth.* 2.93.2; *Anthologia Graeca* 5.271.2 and 9.603.6; Callimachus *Philol. Fragmenta incerti auctoris* 761.2

154), a fact that might suggest that the commonest material for clappers and castanets is wood or cane, which are perishable materials.⁴⁵ It is notable that the earliest references to *krotala* do not mention their material, in sharp contrast with the later sources where their bronze substance is stressed.

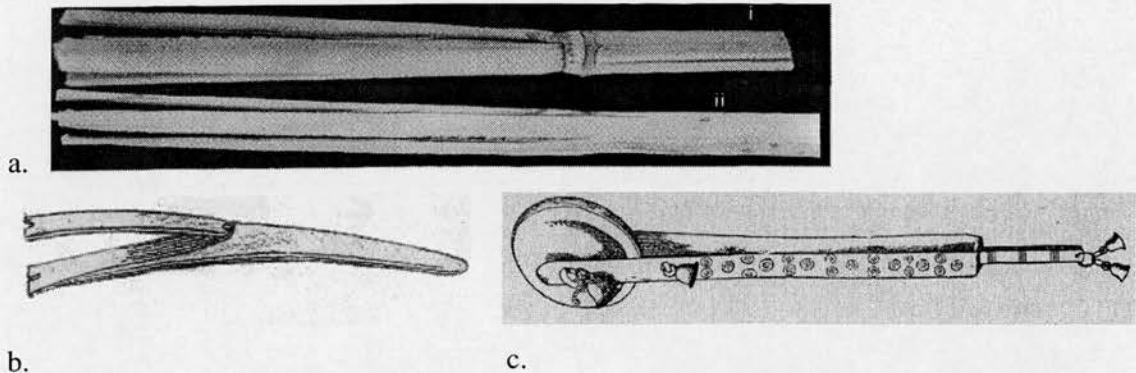


Fig. 4.2: Clappers. a) Reed clappers from Turkey (after Picken 1975, pl. 75). b) Clapper from a mosaic in a tomb at Villa Corsini (after *DarSag* s.v. “*crotalum*” fig. 2074). c) Forked cymbals (after Hickmann 1949c, fig. 47).

Κρέμβαλα (*krembala*) is another term sometimes used, and the words *krotala* and *krembala* as well as *krotalizein* (κροταλίζειν) and *krembalizein* (κρεμβαλίζειν) often overlap in ancient texts and therefore are also thought primarily to denote concussion idiophones, clappers or cymbals.⁴⁶ A 5th century BC reference by Hermippus as well as the definition given by the later lexicographer Hesychius recall Eustathius’ description of *krotala* in general, but the focus on concave shells and sherds seems to designate specifically vessel-clapper (castanet-like) concussion.⁴⁷ From a reference in Athenaeus it is inferred that *krembala* (κρέμβαλα) can have the additional meaning of finger cymbals, because he describes them as made of bronze and played by women “with the touch of fingers” and as making a high-pitched noise.⁴⁸

⁴⁵ This is also the case for the biblical idiophone “*ʾāšēḥrôšîm*” that is identified as a clapper made of cypress wood, which provided orgiastic music for King David (Braun 2002, 12).

⁴⁶ Michaelidis 1989, 175; *GMW i* 76 n. 89, 297 n. 193. See above, Homeric *Hymn In Apollinem* 164 in connection with the Delian festival.

⁴⁷ Hermippus Comic. *Fr.* 31.1, “λεπάδας δὲ πετρῶν ἀποκόπτοντες κρεμβαλιάζουσι” for clashing limpets. Hesychius s.v. κρεμβαλιάζειν, “κογχύλια καὶ ὄστρακα συγκροτοῦντας ἔνρυθμόν τινα ἦχον ἀποτελεῖν τοῖς ὀρχουμένοις”.

⁴⁸ Athenaeus *Deipnosophistae* 14.636d, “...ψόφου μόνον παρασκευαστικά [τὰ κρέμβαλα]...ὄργανά τινα ποια, ὧν ὅτε τις ἅπτοιο τοῖς δακτύλοις ποιεῖν λιγυρὸν ψόφον”. As Athenaeus quotes an earlier lyric for Artemis, Barker takes “*krembala*” in this context to be cymbals (*GMW i* 298 n. 194), following Hickmann 1949c, 522.

Other terms overlapping with *krotala* appear mostly in later texts, and it is possible that they might be names more specific to later inventions; however, they are not applied consistently. Attention should be paid to *πλαταγή* (*platage*). This term is usually interpreted as rattle on the basis of a literary reference mentioning the dedication to Hermes of a box-wood *platage* and other childhood toys such as a ball, a *rhombos* (a kind of bullroarer) and knucklebones, an action which possibly followed the youth's initiation into adulthood.⁴⁹ As already noted, Aristotle informs us that an idiophonic instrument was invented by Archytas and designed to keep children busy and educate them musically at the same time.⁵⁰ It could be expected that Archytas' *platage* was different from the traditional rattles and clappers, as he was known for his mechanical constructions (*GMW i* 176 n. 17; note “χαλκευσάμενος” in *Suda*). Furthermore, the use of the word in Greek texts is rather ambiguous. The references to the toy-instrument of childhood are far from being illustrative, but in Greek literature the verb *πλαταγέω* is commonly used to describe the action of producing sound or loud noise by clapping hands, hitting the chest with the palms, beating the tympanon or clashing cymbals.⁵¹ Such playing action is more suggestive of concussion idiophones (such as clappers) than of shaken rattles. As Archytas' new invention has to be different in form from the traditional instruments and was probably made of box-wood (if the mention of a “*πυξινέη πλαταγή*” is relevant), an instrument similar to the Coptic clappers attested in Karanis [Variation (c)] or

⁴⁹ *Anthologia Graeca* 6.309.π1-4, “Εὐφίμῳ τοι σφαῖραν εὐκρόταλόν τε Φιλοκλῆς Ἑρμείη τούτην πυξινέην πλατάγην ἀστραγάλας θ', αἷς πόλλ' ἐπεμήνατο, καὶ τὸν ἐλικτὸν ῥόμβον, κουροσύνης παίγνι', ἀνεκρέμασεν”. The reading of the word εὐκρόταλόν is decisive here; most readings associate it with the box-wood *πλαταγή*, but if it were read with the spherical object (σφαῖρα), then the latter would also make a clattering sound, bearing a shape comparable to the few surviving spherical vessel clay rattles found in graves.

⁵⁰ Aristotle *Pol.* 1340b.25-28 “ἅμα δὲ καὶ δεῖ τοὺς παῖδας ἔχειν τινὰ διατριβήν, καὶ τὴν Ἀρχύτου πλαταγὴν οἶεσθαι γενέσθαι καλῶς, ἣν διδόασιν τοῖς παιδίοις, ὅπως χρώμενοι τούτῃ μηδὲν καταγνώσιν τῶν κατὰ τὴν οἰκίαν”. Also *Suda Lexicon* s.v. Ἀρχύτας, “Ἀρχύτας πλαταγὴν εὗρεν, ἥτις ἐστὶν εἶδος ὀργάνου ἤχον καὶ ψόφον ἀποτελοῦντος. ὁ δὲ πλαταγὴν χαλκευσάμενος ἐπλατάγει.”

⁵¹ See Liddell and Scott s.v. “πλαταγέω”. *Il.* 23.102, “Ἀχιλλεύς χερσὶ τε συμπλατάγησεν”, interpreted by the scholiast as clapping hands and making noise. *Lexicon Homericum* 146.15 and Nonnus *Dionysiaca* 8.20 ff. in relation to cymbals, tympanon, hands, rhoptron and rhombos; Eustathius *ad Il.* 4.694.2 in relation to ostraka; Bion *Bucol. Epitaphius Adonis* 4, “πλατάγησον στήθεα”; *Suda Lexicon* s.v. λωτός, “θαλάμων ἐπλαταγεῦντο θύραι”. All these instances imply sturdy sounds produced by a powerful impact rather than uncontrolled and sustained rattling noises.

the modern mounted castanets (Mathiesen 1999) would probably reconcile the aspects of a mechanical wooden construction with clapping sound.⁵²

However, another set of references to *platage* (πλαταγή) maintains that it is made of bronze. These are not connected with Archytas' instrument, but with the one used by Herakles to scare off the Stymphalian birds.⁵³ In this context, *platage* is identified with *krotalon*, as the two terms are freely interchangeable in the various versions of the myth of Herakles against the Stymphalian Birds (see below, chapter 4.1.1). This overlapping provides the basis for the relevant lexical entries interpreting πλαταγή (*platage*) as “bronze *krotalon*”.⁵⁴ Ethnomusicological parallels of the myth point to the beating of clappers rather than the shaking of rattles (see below) and, as already mentioned, the literary evidence has also led scholars to believe that references to bronze *krotala* denote forked cymbals (concussion idiophones). If our initial interpretation of *krotalon* as clapper is correct, then the “bronze *platage*” should also be identified as a bronze concussion idiophone, like the forked cymbals for instance (in the absence of adequate material evidence for bronze clapper plaques). But the fact that actual bronze rattles have been excavated in Greece (Robinson 1941; Gow 1939; see Appendix II-RA.25) renders the overlapping of terms more problematic for distinguishing the ancient idiophonic instruments and obliges us to reconsider the initial interpretation of *platage* as rattle (see chapter 4.3).

Moreover, Pollux's statement that an instrument called κρόταλον (*krotalon*) or σεῖστρον (*seistron*) was used by nannies to entertain sleepless infants (*Onomasticon* 9.127) complicates the issue further and suggests an additional meaning for *krotala*. If indeed the same instrument as Archytas' *platage* is intended here, then the traditional scholarly identification of *platage* with some sort of rattle should not be dismissed, as σεῖστρον (*seistron*) is the generic Greek term that precisely designates a shaken idiophone (see chapter 4.3). Pollux's indirect evidence

⁵² See also Manuel Philes. *Carmina* 2.1.913-7 and Hesychius referring to “πλαταγώνιον”, as a noise-making toy made of wood. A conventional pellet-rattle hypothesis for *platage* and *platagonion* is difficult to reconcile with a comment by the scholiast of Aristophanes who describes πλαταγώνιον as being held by the left hand and played by the right (Sch. *Equites* 830a.2-4, “πλατυγίζειν δὲ κυρίως τὸ ἐπιτιθέναι πλαταγώνιον τῇ ἀριστερᾷ χειρὶ καὶ παίειν τῇ δεξιᾷ καὶ ἦχον ἀποτελεῖν”).

⁵³ For bronze *platage* in the myth see Apollonius Rhodius *Argonautica* 2.1055 (and scholia 204.b), “...ὅγε χαλκείην πλαταγὴν ἐνὶ χερσὶ τινάσσων δούπει ἐπὶ σκοπιῆς περιμήκεος”; also *Etymologicum magnum* 731.42-4.

⁵⁴ *Etymologicum magnum* 674.37-40; Pseudo-Zonaras *Lexicogr.* s.v. πλαταγή, (also described as being wide, “πλατεῖην πλαταγὴν”); Hesychius s.v. “κοττίδικα”.

is not enough to outweigh the associations of *platage* (πλαταγή) with clappers, as already discussed, but the overlapping of *krotalon* with *seistron* suggests that, at least in post-classical texts (if not earlier), *krotala* was a term used in an even broader sense than scholars initially believed, and includes both concussion and shaken idiophones.

Our discussion has demonstrated the necessity of examining the contextual details of *krotalon* and *platage* every time they appear in a text prior to any attempt to identify them with a specific instrument, as it is evident that we cannot ascribe to each term a sole and consistent meaning. Pollux's association of *krotalon* (κρόταλον) with *seistron* (σεῖστρον) demonstrates that the former embraced both concussion and shaken idiophones and did not exclusively refer to clappers. In a similar way, *platage* (πλαταγή) is not clearly differentiated from κρόταλον and arguments for its identification with rattles can only be based on the archaeological and not on the literary evidence. This lack of distinction is not surprising given that the means of sound production by collision of surfaces is fundamentally the same in both clappers and rattles despite the recognised differences in playing technique. An assessment of the phraseology describing the playing action of the two different idiophonic types shows that the ancient writers are generally consistent in emphasising the sound production by collision. In concussion idiophones (*krotala*, shells, pottery sherds or *krembala*), apart from the onomatopoeic terms *krotalizein* (κροταλίζειν), *krembalizein* (κρεμβάλίζειν) and *platygizein* (πλαταγύζειν), the playing action is usually portrayed by words like *krouein* (κρούειν) and *psophein* (ψοφεῖν), meaning "to beat, to make sound". An indication of a different playing action for *platage* is deduced from Apollodorus' comment that Herakles shook his hand (χερσὶ τινάσσων) in order to frighten the Stymphalian Birds; this action is better understood in a context of shaken rather than concussion idiophones.⁵⁵ However, in Suda the reed *krotalon* also sounds when shaken by the hands (δονοίη ταῖς χερσὶ) and our earlier analysis has demonstrated that here we are definitely dealing with a folk type of clapper that requires a playing technique similar to that of the rattle. Shaking is required for the sounding of clappers from Karanis in order to make the plaques collide, for the playing of modern mounted castanets and possibly for the forked cymbals.

⁵⁵ This wording is not repeated in the versions of the myth where Herakles uses a *krotalon* instead of a *platage*.

It is thus apparent that the lack of clear and precise differentiation in Greek terminology is due to the similarity of means of sound production and playing action between concussion and shaken idiophones, rather than the negligence or ignorance of the informants. The overlapping of *krotalon* and *platage* in meaning can only show that both terms refer to the same broad instrument family of idiophones, and the association of *krotalon* with *seistrion* shows that the former can be used freely to describe clappers and rattles interchangeably.

Ρόπτρον (*rhoptron*) is another ambiguous term. On the basis of a reference in Plutarch, it is generally understood to denote a kind of kettledrum or tambourine with hollow body covered by leather skin and bells or jingles fitted in the snare; it was played by the Parthians in battle and it produced a deep, frightening noise “like the bellowing of wild animals and the sound of thunder”.⁵⁶ But, in Nonnus *Dionysiaca* the word is used to describe an instrument with bronze elements “tied separately” or “on separate yokes” and this description seems to fit with the forked cymbals.⁵⁷ The instrument was used by the Korybantes in their healing dances, and it was also played along with cymbals and *tympana* in Bacchic celebrations.⁵⁸ It is often mentioned together with tambourines, a fact that might preclude *rhoptron* itself from denoting tambourines in these contexts. Ancient lexicographers report other non-musical meanings of the word and define it as the “bar of a trap which falls”, a “door-knocker”, a “club” and a “convex piece of wood”.⁵⁹ On the basis of the general meaning of the word as “striker”, Bushala has re-interpreted the passage in Plutarch and has proposed that it refers to bronze gongs (ἡχεῖα) struck by curved leather strapped rods, the “ρόπτρα” (Bushala 1969). With regard to playing action, the fact that Nonnus indiscriminately uses the words σείω (to shake) and πλαταγέω (to clash) to describe the way both *rhoptra* and drums (*tympana*) were sounded is puzzling. Shaking cannot be reconciled with Bushala’s attractive suggestion of bronze gongs (unless we suppose that it refers to the subsequent movement of the gong after it has been beaten or as a metaphor for the sound reverberation of the gong), but it is compatible

⁵⁶ Plutarch *Crassus* 23.9.3-4 “Πάρθοι γὰρ....ρόπτρα βυρσοπαγῇ καὶ κοῖλα περιτείναντες ἡχείοις χαλκοῖς ἅμα πολλαχόθεν ἐπιδουποῦσι”. Liddell-Scott s.v. ρόπτρον II; Michaelidis 1989, 275. Mathiesen compares it to a description of Indian tympana in *Suda*, and to the sound device used in stage for thunder noise as described in Sch. *Nubes* 292 (Mathiesen 1999, 174).

⁵⁷ Nonnus *Dionysiaca* 46.121 “ρόπτρῳ δίκτυπον ἁρμονίην κροτέων ἑτερόζυγι χαλκῷ”; See also West 126, n.219.

⁵⁸ Lucian *Podagra* 35-37; Pseudo-Zonaras *Lexicogr.* “κορυβαντείων ἰαχήματα χάλκεα ρόπτρων”; Nonnus *Dionysiaca*; Michaelidis 1989, 275.

⁵⁹ Liddell-Scott s.v. ρόπτρον I, III; *Etymologicum magnum* 715.46-7; Hesychius s.v. “ρόπτρον”; for the meaning of “club” see Euripides *Hippeis* 1172 and Bushala 1969, 170 and n. 3.

with the initial hypothesis of bells or jingles fitted inside the snare of a drum or attached separately on its frame.

4.1.1 *Krotala*: clappers, castanets (one hand plaque or vessel clappers)

4.1.1.1 Typology⁶⁰

Clappers and concussion sticks are thought by organologists to be a natural development of pre-instrumental hand clapping, feet-stamping and body slapping (Blades 1984, 42). The oldest known objects constructed with the intention to produce sound by collision come from Israel/Palestine and date to 12000-8000 BC (Natufian culture). They are primitive ovoid-shaped bone pendants, found in pairs, with identical size and flat interior sides that produce a clear sound when clashed against each other (Fig. 4.3a); a number of such pendants could also be strung by a suspension hole and rattle (Braun 1997, 72; 2002, 52).

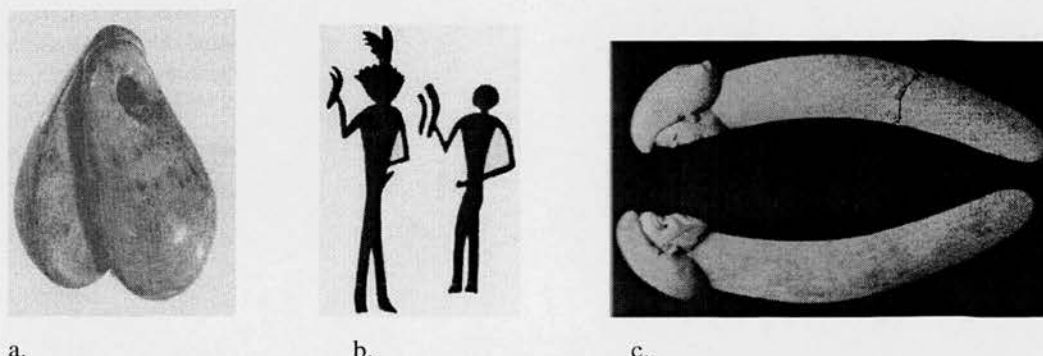


Fig. 4.3: a) Prehistoric bone pendants worn in pairs with colliding flat surfaces (after Braun 2002, 52, fig. II.2). b) One-hand boomerang-shaped clappers (after Lexová 2000, fig. 2). c) Egyptian ivory bent clappers with bearded male head of god Sopdu. I-II Dynasty (3300-2700 BC). Cairo Museum Inv. No. 69457 (after *MiB-Ägypten* fig.63)

Nevertheless, the earliest proper instruments are one-hand boomerang-shaped clappers [Variation (b)] depicted on rock carvings and pottery from Pre-Dynastic Egypt dated to the late 4th millennium BC (Fig. 4.3b).⁶¹ Similar contemporary artefacts corroborate the pictorial evidence (Fig. 4.3c; see also *MGG* 7, pl.40). This type remained popular in Egypt and Mesopotamia thereafter and is shown in numerous representations. The type of two-hand clappers [Variation (a)] appeared slightly later in Egypt during the I Dynasty (3300-3000 BC),

⁶⁰ For the variations of concussion [(a) two-hand, (b) one-hand, (c) pieces mounted on central piece] see above chapter 4.1.0.

⁶¹ *NGDMI* i, s.v. "Clappers" 387; ²*MGG* v, s.v. "Klappern" 171; Lexová 2000, 85; some scholars are sceptical about this identification (Anderson 1976; *NGDMM* vi 71).

in the form of ivory clapping sticks; from that time onwards it has been represented in both the Near East and Egypt.⁶² Concussion sticks/plaques are known worldwide, and are still played by various tribes today (*Survey 3*; *NGDMI i*, s.v. “Clappers” 387 fig. 1).

Although two-hand concussion sticks have not been found so far in the Aegean and Cyprus, their use in order to beat the rhythm should not be ruled out.⁶³ Interestingly, one-hand clappers (*krotala*) are so far absent from the archaeological record of Bronze Age Greece and Cyprus, despite the fact that they were very common in the neighbouring cultures.⁶⁴ One-hand clappers appear for the first time in Greek iconography towards the end of the 8th century BC. There is not much evidence for surviving clappers from Greece and Cyprus. One Rhodian example is reported by Blinkenberg from the Sanctuary of Athana Lindia (CA.2), found in the Archaic deposit and dated before 550 BC; it is described (without illustration) as a bronze oblong object almost 0.10 long and shaped as a pyrigform bowl, a fact that implies that the object was hollow and therefore, if it is indeed an idiophonic musical instrument, it should be classified as a castanet. Blinkenberg also mentions a similar pair from Cyprus (CA.1), unfortunately without context, housed in Copenhagen. These inadequately documented artefacts are the only reported clappers/castanets, but their identification as such is questionable since they have not been illustrated in the publication.

From the 6th century onwards there are numerous depictions of hinged, one-hand clappers in Archaic and Classical art. They are found in two types: Type (a) consists of simple rectangular plaques sometimes narrowing down towards the hinged end. Type (b) consists of boot-shaped plaques (Fig. 4.4a and 4.4b respectively). From representations on vases it can be estimated that they were between 0.11-0.15 long and 0.03-4 wide;⁶⁵ the questionable example from

⁶² See Braun 1997, 72 for pictograms from Uruk and a bronze “sound tool” from Kish; a Sumerian shell plaque from Ur shows concussion sticks flat and bent (ca. 2600 BC, Duchesne-Cuillemin 1980-1, pl. 26; *MiB-Mesopotamien* fig.15; Reis 1998, 153 fig. 4b). See *MiB-Ägypten* 78 fig.47 and *History* 88 fig. 29 for an Egyptian Old Kingdom relief depicting straight rods; also Lexová 2000, fig. 61 for boomerang-shaped sticks accompanying a soldier’s dance (see chapter 4.5, Fig. 4.59b).

⁶³ For possible representation of concussion sticks see below (chapter 4.1.1.2), discussion on Cat.16 and 17.

⁶⁴ One reason could be the use of perishable materials (wood, shells etc.); compare with the wooden leather-bound ῥόπτρον already discussed. An unimaginably wide range of materials can be used as clappers, an example being walnut shells fitted on the tip of the thumb and middle finger and clashed like finger-clappers still used in Turkish folk music today (Picken 1975, pl.d opposite p. 16); a similar use of chestnuts attached to the fingers like cymbals and beaten together in dancing is reported by Stainer in the Israelic music tradition (Stainer 1914, 172 fig. 89). It is possible that artefacts of everyday use and not specifically created to produce sound, such as spears and pots for instance, might also be sounded as idiophonic musical instruments, beaten or clashed (Blades 1984, 42).

⁶⁵ These calculations are based on the fact that *krotala* are consistently proportionate to the length of the forearm at the ratio of 2/3 (Mathiesen 1999, 166).

Lindos (CA.2) is reported to be less than 0.10 long and made of thin metal (Blinkenberg 1931, 154). In vase painting horizontal lines often decorate the far ends (a fact that might indicate wooden or metal re-enforcement adjusted on the ends), but there are also instances where the instruments are depicted plain. All representations show the palm embracing the bottom end of the instrument, which sometimes appears to be rounded in order to provide a steady grip; the resonant part of the two plaques is projecting clearly beyond the hand.⁶⁶ Sometimes the instruments of a pair are not quite identical but can have minor differences in size, resulting to a slight difference in pitch, a fact that would render the rhythmic accompaniment more interesting and “melodic”; such an example is shown in Fig. 4.4b; in this scene, one branch of the left-hand clapper is shorter than all the other branches of the pair.⁶⁷

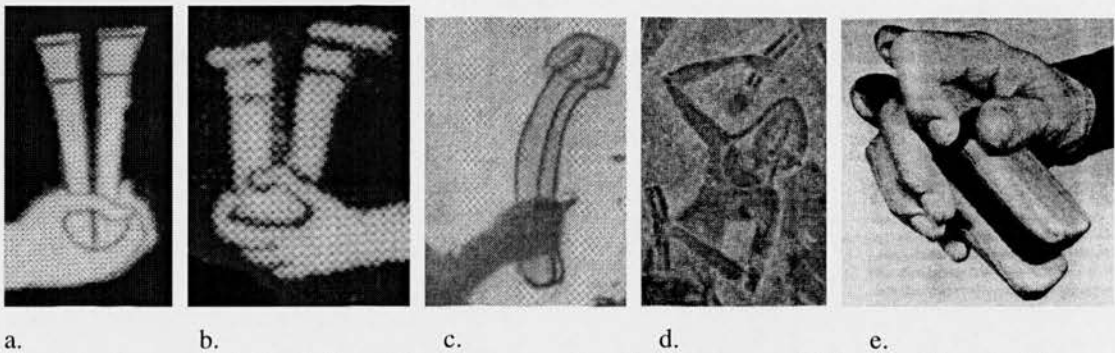


Fig. 4.4: Clappers: a) Greek Type (a) with rectangular plaques. Louvre G49. Late 6th-early 5th century BC (after Paquette 1984, 209, P2). b) Greek Type (b), boot-shaped. MMNY 96.9.191. 490 BC (after Paquette 1984, 209, P4). c) Detail of Egyptian bent, one-hand clappers with Hathoric heads. Thebes necropolis. Middle Kingdom (after *MiB-Ägypten* fig.30). d) Detail of Egyptian undecorated one-hand clappers. Saqqarah necropolis, XIX Dynasty (after *MiB-Ägypten* 56, fig.32). e) Modern clapper playing from Switzerland (after ²*MGG* v, 174 fig.3).

Although in essence the Greek and the Egyptian/Mesopotamian instruments belong to the same category of one-hand clappers, they display differences in size and playing technique. It is clear therefore that we have a typological variation: the Greek clappers are straight, significantly smaller and simple in form, whereas the common Egyptian and Near Eastern forerunners have much longer plaques, which are usually bent and richly ornate with Hathoric

⁶⁶ Stauder mentions an inlaid work of the Mesilim period (2700-2600 BC) showing a type of hinged clappers “held in one hand only – an early version of the kotala ...later used all over Greece” (*NGDMM* xii, s.v. “Mesopotamia”, 197), but he does not specify whether they are held at the bottom in the Greek manner. Clappers held at the bottom are known from old Sumerian artefacts (hinged, with handgrip. 0.15-0.30 long and 0.004 wide) and seal representations, but they belong to Variation (a), played with one in each hand (Reis 1998, 128, Tb.5, fig. 4a; *MiB-Mesopotamien* fig. 16, 29).

⁶⁷ Also compare with the Cypriote example from Laon Museum (Cat. 42) discussed below, that may be holding a different shape of clappers in each hand.

and animal heads at the top (Fig. 4.4c), or modelled in the shape of hands.⁶⁸ Simpler undecorated versions are still larger than the Greek instruments (Fig. 4.4d). Furthermore, the iconography consistently shows two different ways in which the clappers are held, a factor suggesting different playing techniques. In the majority of the representations of Greek *krotala*, the instruments are held by the bottom end with the bottom terminal usually resting within the palm, while the “branches” are markedly separated from each other and resonate by contracting the fingers against the resistance of the palm (in the same way as modern castanets are played) while the knob-like ends ensure a steady grip.⁶⁹ On the other hand, both varieties of long and short Egyptian and Near Eastern clappers are held further up, towards the middle of their length; a different grip is employed, with both plaques/sticks firmly clenched in the palm and fingers, a fact that does not allow them to be significantly separated from each other. From the representations it can be postulated that they are sounded either by a simple contraction of the fingers or by keeping the two clappers slightly apart, in the latter case by inserting one finger between them and making them clash with the flex of the remaining fingers or, for a louder result (*forte*), by the rotating motion of the hand. The former technique is shown in the Islamic and Indian representations of clapper playing (Farmer 1966, 56, fig.42) whereas the latter is used today for short wooden plaques from Switzerland held in reverse (Fig. 4.4e). It is notable that here the handle-like ends project beyond the palm, recalling the Egyptian representations, but this feature is absent from most Greek depictions of clappers. In any case, the Egyptian technique (and possibly the resulting sound) is remarkably different from the Greek one, and there are very few exceptions in Greek iconography that match the Egyptian model (see Fig. 4.7a right, and Boardman 1991, fig. 221).

Although the Greek clapper types (a) and (b) are essentially different from the Egyptian ones, as is deduced from the iconographic evidence, they have a parallel with two isolated instances of clapper representations from 2nd millennium Egypt. Rectangular short plaques of type (a) held at the bottom are depicted on an Egyptian drawing from Deir el Medineh dated to the XVIII Dynasty (15th century BC); they are played by energetic female dancers, striking poses very similar to those of later Greek dancers. The painting is executed in silhouette and the

⁶⁸ See numerous representations in *MiB-Ägypten*; Hickmann 1949; Anderson 1976 for surviving Egyptian clappers; *MiB-Mesopotamien* and Caubet 1996, fig. 3, 4 for Babylonian. This type prevails in Egyptian and Near Eastern iconography.

⁶⁹ For comments on the grip and playing technique of Greek *krotala* see Mathiesen 1999, 166 (based on experiments with replicas). Also compare with the playing of wooden spoons where the convex sides are struck against each other within the palm, a technique that relies precisely on the steady but flexible grip and the resistance of the palm (Anoyanakis 1979, 93; Picken 1975, pl. 1b).

instrument is rendered in a summary form as two V-shaped strokes at the end of the arms (Fig. 4.5).⁷⁰

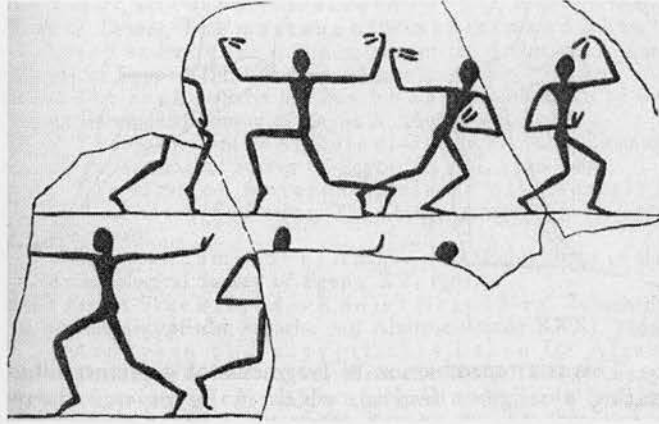


Fig. 4.5: V-shaped clappers, comparable to the Greek Type (a). Egyptian drawing from Deir el Medineh (after Lexová 2000, fig. on p. 73)

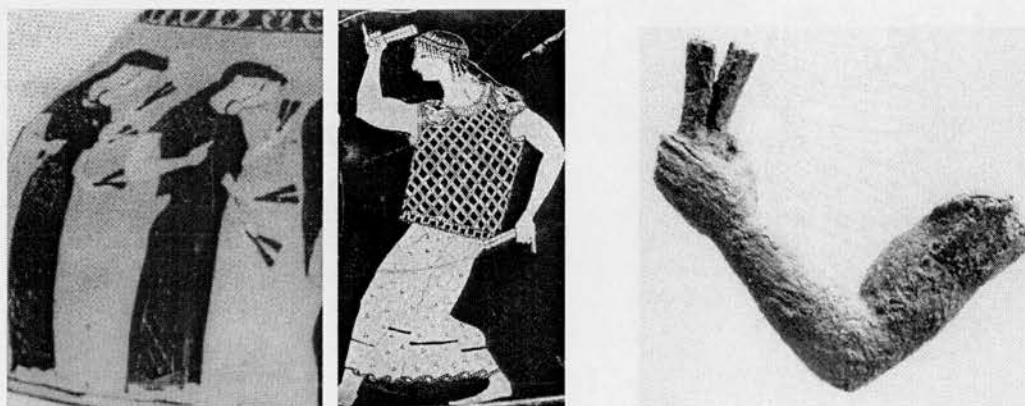
Type (b) is also attested once, on a XII Dynasty (20th century BC) fresco from Assuan (Fig. 4.6; Wegner 1950, 13). The instruments are wider at the top end and held near the bottom end; but here the similarity ends, as the Egyptian branches are much longer than the Greek ones and the hinged edges can be seen below the handgrip indicating the Egyptian playing technique, whereas in the Greek representations the hinges are always hidden in the palm. Both pairs are shown in an upright position in the conventional Egyptian manner.



Fig. 4.6: Egyptian boot-shaped clappers comparable to Greek Type (b). Fresco at the Tomb of Sarenput in Assuan (after Wegner 1950, pl. 14b).

⁷⁰ Lexová describes the instruments as “clackers” comparable with castanets and she comments on the “movemental” dancing style resembling lively Spanish dances (2000, 73-4). Manniche also mentions the representation of Libyans with “very small clappers” (1991, 82, no reference or illustration given), that may be similar. Various museums hold Egyptian specimens of short hand-shaped objects, described as clappers, which might be comparable (examples in Anderson 1976 and *MiB-Ägypten*; contra Manniche 1991, who believes they are not musical instruments but ceremonial objects).

Greek clappers, archaic and classical, are usually played by a dancing figure, male or female, whose arms are in a position which implies vivid movement: either extended or with elbows bent, raised above the shoulder at head level, brought towards the face or lowered at the hips. Only on rare occasions are the arms relaxed. In some instances it appears that the two hands execute an alternate pendular movement with one clapper facing down and the other facing upwards, in a similar way to that of the LG rattle players (Fig. 4.7a). In the literary evidence already discussed, shaking in connection with *krotala* is sometimes remarked upon; it is possible that this, together with the contraction of the palm and fingers, helped the plaques to clash. The line between shaken and concussion idiophones is very fine as various aspects of their performance can be combined, an observation we also made in our discussion on terminology, with respect to the vague differentiation and overlapping of terms in ancient literature.⁷¹



a. b.
Fig. 4.7: a) Examples of arm motion in clapper playing (after Paquette 1984, P3 and Richter 1987, fig. 449). The fact that the Muses on the left are standing while the Maenad on the right is dancing indicates that this arm movement is essential in clapper playing, although it is far more energetic in dance representations. b) Arm of bronze statue with clapper from the archaic temple at Isthmia, early 5th century. The round grip is clearly visible (after Raubitschek 1998, pl. 3).

Scholars usually accept that Greek clappers were hollowed out on the surface of collision, like the ancient and modern castanets (Behn 1954, 68; *History* 103; *West* 123; Paquette 1984, 205).⁷² The piriform bowl-shaped objects from Lindos and Cyprus (CA.1, 2; Blinkenberg

⁷¹ See above for the discussion of πλαταγή and the reference to the flicking of the hand by Appolonius Rhodius; the vivid shaking of the hand is also noted by Picken in his account of the Anatolian clapper made of split cane, the *şakşak*, which he classifies as “clapper-rattle” (Picken 1975, 41).

⁷² The sound of castanets differs from that of clappers, since it derives not only from wood-resonance but also from the resonance of the air enclosed between the two opposed concavities, resulting in a more acute sound. The enclosed air of castanets resonates at frequencies appropriate to the dimensions of the cavity by concussion of the rims (Picken 1975, 6 n.1).

1931, 154) were definitely hollow, but it is not certain whether they were indeed musical instruments. Vase paintings cannot help us clarify this issue, as the grooves would have been opened at the striking faces that are not visible to the viewer. A three dimensional, early 5th century representation of clapper type (a) from Isthmia depicts the instrument at the moment when the two branches are apart, thus making the inside surfaces visible (Raubitschek 1998, 7 no. 18); it shows solid plaques, with no evidence of grooves (Fig. 4.7b).⁷³ Such flat and solid plaques made of wood, sometimes with additional metal jingles attached to the outer surface, are still played in South Asia and are generally known as “*kartāl*” (or *karatāla*, *kartāla*, *kartār*).⁷⁴ The terms derive from Sanskrit *tāl* meaning “to clap” and “hand-palm”, very similar to the associations of the Greek *krotalon* and *platage*. Also solid are the plaques of the Coptic clappers that we know from Karanis [Variation (c)]. In modern Greece, the folk wooden clapper known as *tzamala* is not hollowed, but it consists of two long, narrow tongues with flat inside surfaces, which are made to strike against each other by pulling a string; the shorter tongue is hinged onto the longer at mid-length with a piece of leather (Anoyanakis 1979, 90 fig. 57). Solid slabs with flat inner surfaces (the *čahār pāra*) are found in the world of Islam (Farmer 1966, 56, fig.43); in Turkey the traditional folk instrument *çarpara* (also *çalpara* or *çampara*) consists of hinged slap-sticks/plaques, whereas castanets of the Spanish type with hollowed surfaces (also known as *çarpara*) are not considered to be indigenous (Picken 1975, 10). As already noted, forked cymbals consisted of flat tongues, similar to those of the *tzamala*, which served as prongs where the cymbals were attached (see above Fig. 4.2b). It is apparent that the adding of small cymbals on the already existing flat wooden clapper was a simple adjustment that provided an additional tingling sound.

Representations of castanets are very few and quite different from those of clappers; a Hellenistic-Roman terracotta from Israel/Palestine (Braun 2002, 241 ff.) and a Roman(?) example now in the Museo Capitolino (*DarSag* s.v. “*crotalum*”) display a rounded shape, and hollowed striking surfaces (Fig. 4.8 a and b respectively).⁷⁵ Surviving castanets known from 8th century Egypt (XXIV Dynasty), now in the Cairo Museum, confirm the iconographic evidence, being rounded in shape and hollowed like the modern ones (*Survey 8*; *MiB-Ägypten* 167; *NGDMI* vi, 72). These instruments are thought to have been imported. Sachs suggested a

⁷³ The same observation can be made for a similar 5th century Etruscan bronze now in Florence (Inv. No. 70473; see *MiB-EtrurienRom* 30, fig.8).

⁷⁴ *NGDMI* ii 353; Reis 1998, 148 and fig. 5a for example from Western Rajasthan. In some areas the term also denotes metal clapping rods.

⁷⁵ Compare with the round shape seen on Cat. 43 discussed below.

Phoenician ancestry for the castanets,⁷⁶ but others see them as indigenous Spanish instruments that have replaced the Egyptian bronze cymbals with similar chestnut hollowed plaques (Spencer 1995; *NGDMM iii* 864).⁷⁷ On the other hand, the early use of cymbals in the Levantine area and the evidence from folk tradition (chestnut finger clappers) might indicate that concussion vessels actually originated there.

As well as the common round shape, Sachs describes a boot-shaped variety of castanets found in Egypt, “cut in half lengthwise and grooved in the leg part, while the tapering foot served as a handle” (*History* 103). This instrument is played by a couple of Late Hellenistic bronze male and female gracious dancers. Its wide branches are in sharp contrast with the tiny handle shaped as a curved projection which is joined like a “boot” (Fig. 4.8c; *MiB-EtrurienRom* figs. 68 and 69).⁷⁸ The oblong, bronze, hollow objects from Lindos and Cyprus (CA.1, 2) may actually resemble these castanets in form, although the boot-shaped handle is not mentioned by Blinkenberg.

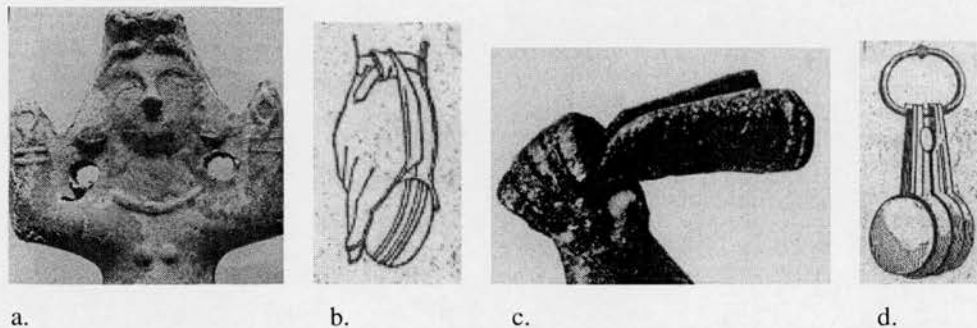


Fig. 4.8: Castanets. a) Round castanets in the palms of a female dancer. Terracotta plaque from Beth Nattif (after Braun 2002, pl. V33). b) Roman representation of round castanets tied to the wrist with a ribbon (after *DarSag* s.v. “*crotalum*” fig. 2077). c) Boot-shaped castanets played by a Hellenistic bronze female dancer. Late 2nd-early 1st century BC. Tunisia Museum (after *MiB-EtrurienRom* fig.69). d) Aryballos-shaped castanets attached on a ring (after *DarSag* s.v. “*crotalum*” fig. 2078).

However, Sachs’ description and the evidence from the bronze statuettes contradict the vast majority of Greek iconographic boot-shaped representations. In Greek art it is precisely the “boot” that is broader and resonates, resting opposite the hand grip which is not given any

⁷⁶ Although Sachs only recorded specimens of a late date coming from Christian graves, he suggested that they originated from the Phoenician colonies of Southern Spain and Italy (*History* 103).

⁷⁷ Sachs’ hypothesis is supported by a brief comment by Scammon, a 4th century BC historian, who attributes the invention of *krotala* to the Sicilians and possibly refers to castanets rather than clappers. Scammon *Hist. Fragmenta* 5.53-5 “Σικελοί τε οἱ πρὸς τῇ Ἰταλίᾳ πρῶτοι φόρμιγγα εὗρον οὐ πολὺ τῆς κιθάρας λειπομένην καὶ κρόταλα ἐπενόησαν”.

⁷⁸ A terracotta mannequin doll with joined arms and legs from Athens (ca. 350 BC) also holds two clappers from the “boot” part (*BM Inv.* No. GR1865.7-20.34). See also *CVA Belgique* 2, pl. 5:1b for an isolated instance in red figure vase painting.

special shape (Fig. 4.4b). The same is true for the above-mentioned Egyptian, boot-shaped, painted examples from the tomb of Sarenput (Fig. 4.6) that have been interpreted by Hickmann as castanets (*MiB-Ägypten* 162). If this identification is correct, then an arrangement of solid-and-hollow surfaces opposite to that mentioned by Sachs is to be expected, with the wider, boot-like part being hollowed out. This is actually seen on another castanet example from Egypt, which Marcuse and Behn describe as “aryballos-shaped” (Fig. 4.8d; *Behn* 119, fig.69; *Survey* 8; *DarSag* s.v. “*crotalum*” fig. 2078). It is possible that the Greek boot-shaped *krotala* of Type (b) had a similar arrangement, with a hollow, wider end that would increase the sound, in which case they should be classified as castanets (one-hand vessel clappers). On the other hand, in most representations the boot-ends look rather narrow (in contrast to the Egyptian example or the aryballos-shaped surviving instruments) and suggest that they served as an extra re-enforcement (possibly made of metal?) at the end of the clapper for a richer sound.⁷⁹

In the absence of actual artefacts, the identification of flat solid surfaces (clappers) and hollowed ones (castanets) with types (a) and (b) respectively still remains hypothetical. The literary references to *krotala* made of split cane suggests that, at least in some instances, the striking surfaces were naturally hollowed, a feature that might or might not be copied in other materials like bronze and wood. Apart from the questionable hollow, oblong castanets from Lindos and Cyprus (CA.1, 2), the bits of pottery or shell (the so-called “*ostraka*”) that were sometimes used instead of actual *krotala* present additional evidence of hollowed surfaces; however, the latter could have been clashed in both ways, either on their concave side like castanets, or on their convex side like clappers.

4.1.1.2 Iconography and motifs: Early Iron Age

Clapper representations in EIA Greece and Cyprus are limited and rather obscure and the instruments are not depicted as clearly as in the Archaic and Classical examples (Fig. 4.9):

- (VP) 16) **Skyphos.** *NMA* Inv. No. 729. From Athens, Dipylon grave.
- 17) **Skyphos.** *BM* Inv. No. 1950.11-9.1. Unknown provenance.
- 18) **Pitcher.** Copenhagen Inv. No. 7307. From Athens, Dipylon.

⁷⁹ The Greek boot-shape at the resonant end can be compared to a similar feature on solid, wooden Islamic clappers (the abovementioned *čahār pāra*) where the end opposite the hand grip is bent outwards (Farmer 1966, 56, fig. 43).

- 22) **Neck fragment.** Agora Museum Inv. No. P12499. From Athens, Agora (Well Q 18:1)
- 32) **Krater with lid.** Basel, Antikenmuseum Inv. No. BS406. From Boeotia.
- 42) **Oinochoe, Bichrome IV.** France, Laon Museum Inv. No. 37.871. From Cyprus.
- 43) **Amphora neck fragment.** Delos Museum, B 4260. From Delos.
- (MV) 167) **Votive relief plaque.** Sparta Museum. From Sparta, Artemis Orthia Sanctuary.
- (M) 185) **Shallow bowl.** MMNY Inv. No. 74.51.4555. From Cyprus.



Cat. 16



Cat. 17



Cat. 18



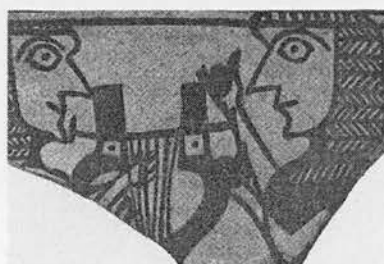
Cat. 22



Cat. 32



Cat. 42 (and clapper detail)



Cat. 43



Cat. 167



Cat. 185

Fig. 4.9: EIA clapper representations. Cat. 16-22, 32, 42, 43, 167, 185

It is difficult to render in silhouette the action of clapping *krotala*, as the instrument is placed within the palm and therefore it overlaps with the hand; furthermore, its small size and simple form makes the depiction very ambiguous. LG painters resort to adding a V-shaped motif projecting from the end of the arms that could be easily mistaken for an indication of fingers. However, an overview of LG vase painting shows that when the painters wish to show the

hands, they generally try to do it as accurately as possible, with a wide blotch representing the palm and three to five short strokes marking the fingers, or with five fingers attached to the stick-like arm.⁸⁰ In addition, the position of raised arms with a vertically bent elbow near the level of the face (Cat. 16, 17, 32, 42, 43, 167, 185; less vertical on Cat. 22; only once on Cat. 18) echoes the various Bronze and Iron Age clapper playing representations from the Mediterranean that we have discussed so far. We find the same position of the hands in depictions of hand clapping (chapter 4.5, Type A), as well as in some representations of Egyptian cheironomists conducting dance performances (Lexová 2000, figs. 35-6; see chapter 4.6.1).

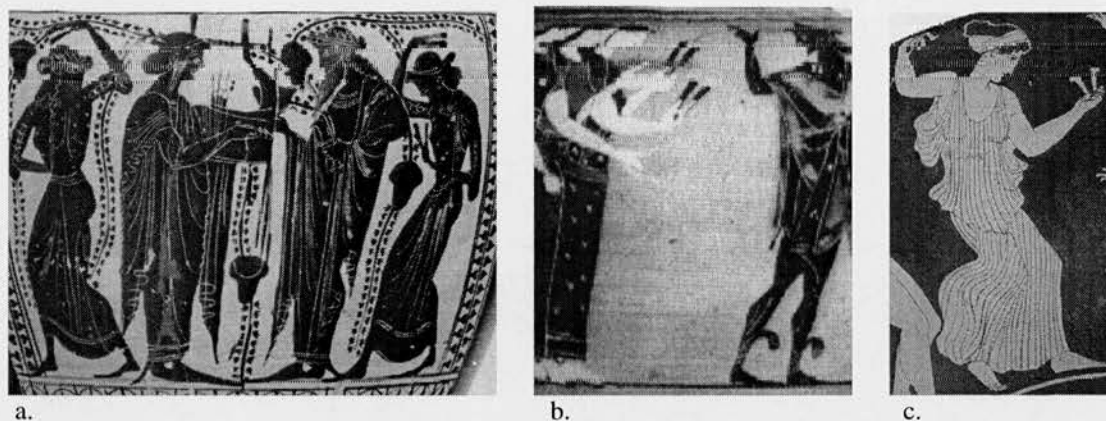


Fig. 4.10: a) Attic hydria. Apollo (with kithara) and Dionysos flanked by two dancing Maenads playing *krotala*. First quarter 6th century BC. Hamburg Museum für Kunst und Gewerbe Inv.No.1917.477 (after LIMC II:2, 249, Apollo 766). b) Amphora from Vulci. Hermes and the Muses with clappers. Late 6th century BC. Munich Antikensammlungen 1490 (after Boardman 1991, fig. 218). c) Attic bowl with satyrs and Maenad playing *krotala*. Berlin, Staatliche Museum, Inv. No. F2532 (after LIMC VI:2, 32, Kisos I,2).

The V-shaped motif on Cat. 22, 32, 42, and 185 can be compared to the treatment of the subject in the Egyptian 15th century painting in silhouette already discussed (Fig. 4.5). A similar V-shaped arrangement can be observed on Black-Figure vases, such as the Attic hydria in Hamburg (Fig. 4.10a) or on the neck amphora from Vulci (Fig. 4.10b).⁸¹ The clappers are painted black; in the second example they are clearly discerned from the white hands of the females that play them, but in the attic hydria (Fig. 4.10a) the V-shape is formed by combining hand grip and instrument together. This arrangement shows what was probably also intended by the LG vase painters when they employed the V-shaped form in silhouette, as

⁸⁰ See for instance hand clapping (chapter 4.5) and hands depicted on Attic prothesis scenes (Ahlberg 1971), as well as on Boeotian, Argive, Lakonian and Ischian pottery (Coldstream 1968; Boardman 1998).

⁸¹ See also V-shaped rendering of clappers on an Attic Black-Figure stamnos housed in the Louvre (Boardman 1991 fig. 221).

in Cat. 22 and 32. Furthermore, the V-shaped formation on the example from Cyprus (Cat. 42) and the fragment from the Athenian Agora (Cat. 22) have blobs marking the resonant ends of the instrument, a feature that can be compared with later representations of boot-shaped *krotala* [type (b)] already discussed, such as those played by a Maenad on a Red-Figure bowl in Berlin (Fig. 4.10c).

Cat. 43 from Delos is painted in outline, and this enables the painter to show the instrument in silhouette and to differentiate it from the hand, as in the Black-Figure Archaic examples. However, here the shape of the instrument is somewhat different, presenting a substantial round part within the palm and two very short strokes projecting from the periphery. One possibility is that in this example the rounded grip of the clappers is articulated in greater detail, as the fragment is later than the previous examples. However, the slapping plaques/branches are unusually short and one is tempted to compare the Delos fragment with the much later surviving representations of castanets with round shape already discussed. As the V-shape is not prominent, it might actually represent the fingers; furthermore, the position of the object within the palm hints towards the manner of striking castanets. Aign proposed that small cymbals rather than clappers/castanets are depicted on the Delos fragment (Aign 99, n.5), but early cymbal-playing representations usually show the moment when the two cymbals are clashed (see below, chapter 4.1.2)

In Cat. 32, 22 and 43 the instrument is embraced by the fingers and does not project much (if at all) from the hand, in contrast to the usual Archaic and Classical rendering. It might be that it is a smaller instrument. Scholars have suggested finger snapping as an alternative explanation for Cat. 22 and 43 (see Appendix I). If so, the rounded feature of the Delos fragment would have to stand for bent fingers in contrast to those of the opposite lyre-playing Siren, and the feature of Cat. 22 would have to represent fingers in a manner unparalleled in geometric vase painting; the latter is ruled out by the similar rendering of Cat. 42 where an identical object is clearly held. Furthermore, the modelling of these LG hands does not resemble the classical depictions of finger-snapping (see chapter 4.6.1).

In contrast to the previous examples, the Cesnola bowl (Cat. 185, 3rd register) presents a V-shaped arrangement with longer branches clearly projecting from the hand as two engraved lines. The identification of the lines with clappers is very probable, although the pair of lines is not any more descriptive than in the silhouette paintings and so it might well be

accidental.⁸² Both arms are brought together at face level and it is not clear whether one or two clappers are intended. The figure is following a double auloi player and another musician (now missing) towards a reclined symposiast. The four pictorial registers of the Cesnola bowl are thought to narrate a princely marriage and, among all known bronze bowls with musical processions, it is the only one that replaces the customary tambourine playing with *krotala*.

The second example from Cyprus is a Bichrome IV Oinochoe (Cat. 42) that is particularly interesting. A male figure is shown in vivid dancing stance, with the arms in alternate motion and legs taking a wide step, a movement often performed by dancers with *krotala* and represented in Egyptian and later Greek iconography (compare with Fig. 4.7b and Paquette 1984, P2). Objects in silhouette project from each hand in the manner of clappers; these have not been addressed by scholars (Tsipopoulou 1998), and it is proposed here that at least one of them (the object held in right hand) represents *krotala*. The V-shaped instrument of the right hand is similar to the one on Cat.22 from the Athenian Agora but facing downwards. The left hand holds an unparalleled hook-shaped object from one end. The identification with clappers is supported by the dancing posture and arm position of the figure, and the clapper depiction in the right hand is in accordance with the representational solutions offered by the EIA Greek iconography (note the effort to depict in a more naturalistic manner the hand-grip as shown once the hand is raised above the head in vivid dancing, which is different from the less energetic poses of Cat. 22, 32 and 43). It is possible that the object in the left hand is another idiophone, a bent clapper reminiscent of its Bronze Age Levantine and Egyptian antecedents, or even a castanet comparable to the boot-shaped instruments known from Sachs' descriptions and from the Hellenistic bronzes already discussed. In any case, the combination of two varieties of clappers would certainly enrich the acoustic result and create an interesting two-tone "dialogue" effect to complement musically the rhythmic accentuation.

Aign was the first to suggest that Cat.167 represents *krotala*. The instrument does not present the V-shaped form, but is shown at an angle to the wrist, displaying the moment when the plaques are actually struck together, rendered as an oblong projection with a light groove running through the middle to distinguish the two branches. This manner of execution at the turn of the 6th century is similar to many Archaic and Classical Greek vase paintings (compare with Fig. 4.7b), and it is also seen in Egyptian Bronze Age representations where the two plaques are shown together. The figure is in a vivid dancing pose, with one hand on the hips

⁸² In this case, hand clapping would be the alternative explanation (see below, chapter 4.5). Culican proposes that castanets or a small jar are held (1986b, 585).

and the other striking clappers above the shoulder, a common pose in Greek dance representations. Like the figure on the Cypriote *oinochoe*, the leading Spartan figure does not hold identical objects in both hands. The round shape of the left hand (at the hips) could also be a castanet, thus producing a two-tone rhythmic pattern in combination with the clapper, but it might also be that no other instrument is held and this is just the rendering of the palm.

Identifying the instruments on Cat. 16 and 17 is rather difficult. The seated pose and the hand position of the figures on Cat. 16 and 17 are in accordance with that of the rattle players depicted on the so-called Rattle Group, a particular genre of Attic LG:II scenes representing antithetic seated figures swaying *phormiskos* and pomegranate-shaped objects identified as rattles (see chapter 4.3.1.3). Due to their iconographic affinity, they have been attributed to Painter B of the Rattle Group (Borell 1978).⁸³ These two compositions have replaced the juxtaposition scheme employed in the majority of the Rattle Group scenes with a continuous frieze of seated figures decorating the interior of skyphoi. As rows of successive rattle players are depicted on two more Rattle Group artefacts, a pitcher from Boston (combined with the juxtaposition scheme, also by Painter B) and a high-rimmed bowl from Mt. Holyoke (Cat. 11 and 19 respectively), some scholars thereby infer that Cat. 16 and 17 also represent rattle players (*Rombos* 482).

However, the consistent repetition of the *phormiskos*/pomegranate shapes on the other Rattle Group scenes (including those of Painter B) is in contrast with the ambiguous variety of forms observed on Cat. 16 and 17. Unfortunately the pictorial friezes are severely faded and damaged at places, a fact that renders the identification of the objects/instruments even more problematic. On Cat.16 details of the hands can be discerned only on four out of the twelve figures (Fig. 4.9): from right to left, the first figure vaguely retains the V-shape (*krotala*?), the second is unclear, the hands of the third are shown as rounded blotches with short strokes (hand-clapping or castanets?) and the fourth figure holds two stick-like objects parallel to each other (clapping sticks or ill-shaped rattles?).⁸⁴ Cat.17 follows Cat.16 in style but is looser in execution; a similar sequence of rounded and stick-like formations is observed, but here the latter is more substantial (Fig. 4.9, Cat.17 right) and recalls the ill-shaped elongated rattles of Cat.12 from Brussels and their up-and-down playing action.

⁸³ Contra Davison 1961 and Coldstream 1968 who attributed Cat.17 to the Birdseed Painter.

⁸⁴ The particularities in representation are overlooked by *Rombos* (482) who takes them to be all rattles, but have been noted by other scholars who have suggested hand clapping and clapping-sticks rather than rattles for this scene (Hahland 1954, 179; *MusikTanz* cat. no. 26). In the absence of Greek comparative material, the clapping-sticks hypothesis is only tentative here (but compare with seated Egyptians with clapping-sticks in Manniche 1991, fig. 7).

Cat. 16 and 17 show no interest in rendering the most decisive feature for rattle identification, that is, their pendular movement that invariably appears in all the other Rattle Group scenes (see chapter 4.3.1.3), with the single exception of one figure on Cat.17. On the contrary, the stick-like objects are shown parallel to each other. The consistently fluctuating modelling suggests that we might not be dealing with degenerated rattle representations, but with related idiophonic performances; the position of bent arms brought forward is also compatible with hand-clapping and clapper playing, seen on clapper players of Cat. 22, 43 and 185. Our iconographic analysis points towards an unprecedented combination of hand-clapping, clappers and clapping-sticks or rattle playing.

Cat. 18 is also connected iconographically to the Rattle Group; it is discussed here because it has been maintained that it represents an idiophonic instrument, bronze or wooden, other than a rattle (*Rombos* 287-9).⁸⁵ In contrast to the other scenes of the group, all figures (except for the one in the centre) have both arms relaxed, a feature incompatible with clapper playing action. Furthermore, the hand modelling bears a resemblance to the common blotch-and-strokes palm and finger representations rather than to the V-shape of the clappers. It is more likely that the figures of Cat.18 hold nothing in their hands.⁸⁶ We can see a similar treatment of the hand extremity on the female chorus of Cat.33 from Boeotia, also with their arms relaxed. The fact that on Cat.18 the central figure raises her left hand indicates that we are not dealing with a repeated motif of seated figures but that we have some sort of group action. The analogy with the motionless, standing pose of the file of females on Cat.33 facing a gesture equivalent to that seen on Cat.18 supports our inference. From the static pose of the group it can only be surmised that that they are singing or vocalising.⁸⁷ It is possible that the central figure is co-ordinating the action undertaken by the other seated figures, conducting their singing with cheironomical gestures or with the aid of an idiophone (see chapter 4.6.1.2); her hand extremity is modelled with small strokes, almost V-shaped, differentiating her gesture from the rest of the figures.

⁸⁵ *Rombos* mentions Wegner's hypothesis of an instrument shaped like a modern triangle, which she rightly rejects as it has no comparable examples and, as it would need striking, a different position of the hands would be expected (*Rombos* 287-8).

⁸⁶ Contra Wegner (in *Rombos* 287-8) who gave major importance to the number of strokes and argued that the inaccurate 3-4 strokes at the extremity of the hands cannot represent fingers. However, fewer than five fingers are observed quite frequently in geometric vase painting.

⁸⁷ Mourning should be ruled out, as they do not bring their hands to the head.

EIA clapper iconography makes use of the following motifs:

1. Sole dancer with *krotala* (Cat. 42, 167)
2. Antithetic instrumental ensemble (castanets/lyre; Cat. 43)
3. Musical procession/dance (Cat. 32, 22(?), 185)
4. Seated musician/s (Cat. 16, 17, 18).

1. Sole dancer with *krotala* (Cat. 42, 167)

With the exception of the ambiguous Rattle Group scenes with seated musicians (Cat. 16, 17, 18), artists are consistent in presenting *krotala* played by dancers and figures in energetic pose. We know from the literary sources that *krotala* were played in honour of Dionysos and Kybele or the Mother of the Gods. This is reflected in the abundant scenes of Maenad dancers and Dionysiac rituals, both common subjects in the Archaic and Classical periods, where *krotala* are included. Although EIA iconography does not portray bacchic or orgiastic scenes, it nevertheless produces indubitable depictions of lively sole dancers with clappers (Cat. 42, 167). The earliest comes from Cyprus (Cat. 42) and is dated between 750-600 BC; this isolated male dancer on the Bichrome IV Oinochoe might allude to religious performance of possibly ecstatic character, judging from his striking posture that recalls later Greek Maenads. The male sex⁸⁸ is unusual in representations of this genre unless we are dealing with a satyr. Male dancers, always lined up or arranged in a circle, are attested pictorially in Greece (Cat. 20, 29, 30, 32, 52) and less often in Cyprus (Cat. 98); in this respect, the Cypriote example might follow Greek prototypes. Furthermore, the posture and the isolation of the figure on Cat. 42 are in accordance with the female lead votive from Sparta (Cat. 167). The performance context and the identity of the dancer elude us, due to the lack of Cypriote iconographic parallels and because we do not know the find context of the Cypriote oinochoe. On the other hand, the deposition of the votive lead (Cat. 167) at the Orthia Sanctuary evidently indicates a religious performance context, pointing to the ritual dances for Artemis and the local deity Orthia, who was assimilated with her. The votive of a female dancer with *krotala* wearing a polos illustrates adequately the cultic connection of *krotala* with Artemis, which is also attested in literature.⁸⁹

⁸⁸ The figure on the Bichrome IV Oinochoe is described as male by Tsipopoulou (1998, 22 no. 28), a view corroborated by the short spiky hair and the resemblance to the modelling of the male lyre player on the Hubbard Amphora (Cat. 40).

⁸⁹ See Callimachus Philol. *Fragmenta Lyrica Adespota* 37 for Artemis and *krembala*, and especially 761.1-5 for her followers clashing weapons and *krotala* to ensure fertility, “Γάλλαι μητρὸς ὀρείης φιλόθυρσοι δρομάδες αἷς ἔντεα παταγεῖται καὶ χάλκεα κρόταλα...βλαστεῖ δ’ ἐπὶ γῆς δένδρεα παντοῖα φύοντα.”; also Fitton 1973, 274.

2. Antithetic instrumental ensemble (castanets/lyre; Cat. 43)

A connection with the cult of Apollo and its festival is evident from the Homeric Hymn and the fragment from Delos (Cat. 43), which some scholars have interpreted as Apollo and Artemis rather than two antithetic Sirens (see Appendix I); although the hypothesis of the two deities playing their respective instruments is attractive, the modelling of the hair and the profile of the face strongly recalls Late Geometric and Orientalising daemonic creatures.⁹⁰ The juxtaposition of stringed and concussion instruments is not uncommon in Egyptian and Near Eastern musical iconography, and the antithetic position of monsters is a favoured motif in Bronze and Early Iron Age Eastern Mediterranean. Nevertheless, the combination of the two, with two antithetic Sirens playing lyre and castanets/*krotala*, is found on the Delos piece for the first time and later parallels from the Aegean are also rare.⁹¹ The scene might allude to a certain myth (like the relevant passage from the *Odyssey* for instance) or stand as a symbol for the Delian chorus singing *κρεμβάλιαστών* (*krembaliastun*), but unfortunately the narrative of the Delos fragment is lost to us. We could perhaps infer that the symbolic connection of the Sirens with the Underworld adds a chthonic character to the performance of the *krotala*.⁹²

3. Musical procession/dance (Cat. 32, 22(?), 185)

In three instances the *krotala* are played along with the lyre (Cat. 32, 43, 185), indicating the complex musical character of the performance. The iconographic motif on two of them consists of a musical procession-and-dance ensemble without holding hands (Cat. 32 and 185). The inclusion of clappers with string instruments in religious musical processions is attested in earlier Egyptian iconography (*MiB-Ägypten* 46, fig. 20; Wegner 1950, pl. 11a; Manniche 1991, 60 ff, fig. 40), but the contemporary Levantine EIA processions instead include tambourines and cymbals, and the same combination is seen on the bronze bowls from Cyprus and the Aegean (Cat. 179-187, 190). The Basel krater (Cat. 32) retains the clappers and the Cesnola bowl (Cat. 185) similarly replaces the tambourine with *krotala*.

Cat. 32 is connected to the broad genre of armed soldier processions, often combined with prothesis scenes, which have been interpreted in some cases as armed dances performed

⁹⁰ See for instance Boardman 1998, 69 fig 120:2, 133-4, figs. 263-5.

⁹¹ On a Boeotian bowl in New York (*MMNY* Inv. No. 57.12.5) three Sirens on rocky terrain are playing *auloi*, lyre and *krotala*, the latter two in juxtaposition as on the Delos piece (*LIMC VIII*:2, 743, Seirenes 117). The usual representation of Sirens, however, shows two of them playing a lyre/kithara and double *auloi* respectively while the third one is singing (Neils 1995; *Dons* no. 93; *LIMC VI*:2, 632-3, *Odysseus* 153, 159; 156 replaces the *aulos* with *tympanon*). For Sirens with clappers see also Boardman 1966, 5 n. 39.

⁹² For Sirens as iconographic chthonic symbols and guards of the entrance to Hades see Neils 1992, esp. 235 with references.

during funerary rites despite the total absence of a musician (Kauffmann-Samaras 1972; Ahlberg 1971, 202 ff.).⁹³ The dancers of Cat.32 are led by a lyre player maintaining the processional character as they do not hold hands; they are lightly armed, lacking the habitual shield and spears and retaining just the sword and a pointed headgear that may represent a helmet (although the crest is not shown).⁹⁴ But the Basel krater armed dancers are also equipped with clappers, a feature not seen on other LG representations, emphasising the importance of rhythmic sound for the specific event.⁹⁵ In terms of compositional syntax and musical context, the scene recalls the files of male dancers clapping hands and following a lyre player (Cat.6, 20, 29, 30).

Apart from the presence of a lyre player, the position of both the dancers' arms is another point that differentiates the dancers on the Basel krater from the usual geometric files of soldiers;⁹⁶ this is consistent with the manner of representing clapper-playing action in Bronze and Iron Age Mediterranean, usually depicted in lateral view (see for instance Cat. 43, 185 and Egyptian compendia). But the frontal and symmetrical raising of both hands found in Cat.32, together with the coordinated pace of the figures, gives a solemn ceremonial character to the performance. It recalls the adoration/epiphany gesture commonly assumed by divinities and mortals in Bronze Age iconography, which is also found on EIA terracottas (see for example Cat.81-84) and geometric bronzes.⁹⁷ In his discussion of a series of Hellenistic-

⁹³ Files of males with swords (one arm raised in lamentation) sometimes approach one side of the bier, balanced by a female procession on the other side, a fact that might suggest that both groups are participating in a funerary dance (Ahlberg 1971).

⁹⁴ Similar pointed headgear is worn by geometric bronze statuettes of warriors from Athens, Amyklai, Delphi, Olympia and Samos (Schweitzer 1971, figs. 159-165, 171, 185-187) following an earlier Hittite tradition (see also Cat. 188, zone c), as well as by EIA male *auloi* players from Greece and Cyprus (Cat. 95, 77-80, 98, 107, 132, 175, 177).

⁹⁵ Upon this point they recall Egyptian lightly armed mimetic combat dancers that may also hold clappsticks and are accompanied by separate clapper-players; a similar Aegean Bronze Age scene includes lyre-playing and hand-clapping (see below, chapter 4.5).

⁹⁶ The hands of the two figures at the end of the line overlap due to the lack of space and this should not be taken as an indication of holding hands, as this feature is clearly absent from the figures at the beginning of the line. Compare this with a scene of armed dancers from Munich (Inv. No. 6026, Kauffmann-Samaras 1972, fig. 6) and another of male dancers from Amsterdam (Allard Pierson Museum Inv. No. 3941, Ahlberg 1971, fig. 57:a), both with raised arms holding hands, where the painter is always consistent in showing the overlapping of the palms, the latter depicted in the usual LG blotch-and-strokes manner.

⁹⁷ Compare with Geometric helmeted nude male bronze figurines from Olympia with raised arms, interpreted by some scholars as images of Zeus (Schweitzer 1971, 128, figs. 117-121). See also Wedde 1999 for discussion on the Minoan-Mycenaean use and meaning of this gesture (G13-15 in his typology). Ahlberg interprets the raising of one or both hands in the Geometric prothesis and ekphora scenes as identical deictic gestures usually associated with the deceased (1971, 265), but only one example of a figure with both hands raised is known from the prothesis context (*Louvre* Inv. No. 3283, Ahlberg 1971, fig. 47:b). Her view cannot be maintained for the syntax of the Boeotian scene that is confined to the performance and offers no focal point for the dancers.

Roman terracotta plaques from Beth Nattif representing females playing cymbals and castanets (see above Fig. 4.8a), Braun made a similar observation and remarked on the figures' static character with arms that "seem raised in worship in the manner of the Iron Age figures" (Braun 2002, 241). Even though the interpretation of these terracottas is not certain (priestesses/temple servants, dancers, lamenting women or "funeral brides"), their symbolically charged gesture combined with idiophonic instruments is noticeable and echoes the arm position of our Boeotian dancers with *krotala*.

In general, the attitude of the armed participants of the musical procession in Cat.32 is very different from the usual vivacious postures of EIA dancers (Cat. 42 and 167). It is better understood in the context of sombre representations of the Archaic period, where female *krotala* players (Muses) follow the leading lyre player (Apollo); such composition is seen on an Attic late 6th century amphora in Copenhagen (Inv. No. 3241, Fig. 4.11).⁹⁸ In contrast with the common contemporary bacchic themes, it depicts Hermes, Apollo-kitharist and the Muses playing *krotala* while approaching the enthroned Zeus. The scene recalls the singing κρεμβαλιαστύν mentioned in the Homeric *Hymn to Apollo* and it is clearly religious in character. Fitton suggested that the representation of Apollo-kitharist leading the singing Muses towards Zeus denotes the same procession preceding the battle with Python at Delphi as described in the Homeric *Hymn to Apollo* (182-206); he added that the scene alludes to the performance of an enacted cult drama.⁹⁹ The similarity of the music ensemble to that on the Basel krater could indicate that here too a different drama is enacted by the male dancers with swords, clapping *krotala* and led by a lyre player.¹⁰⁰

On the other hand, the Cesnola bowl (Cat. 185) dismisses the ritual character of the procession and transforms the processional theme into a secular celebration, anticipating the Archaic and Classical genre of symposia with *krotala* accompaniment. Finally, the poor preservation of the small Agora fragment (Cat. 22) makes any attempt for interpretation purely speculative; the fact that the potential musician is preceded by another active figure suggests that we might have some sort of processional dance.

⁹⁸ See also *LIMC* VI:2, 388, 403 Mousai 36b and 123 for similar compositions.

⁹⁹ "When a Greek god has an important role in what is evidently a cult drama, and is also seen as the leader of a dance group, there is a good case to suppose that originally the dance group and its leader were enacting the cult drama" (Fitton 1973, 257).

¹⁰⁰ The myth of the Kouretes that danced *krotalizein* (making sound by beating shields, *krotala* or cymbals) inevitably comes to mind (Sch.Soph. Ajax 699e.4, "...λέγεται γὰρ τὴν Ῥέαν [...] στήσαι τινας ὀρχουμένους καὶ κροταλίζοντας, ἵνα ὑπ' αὐτῶν ὁ τοῦ Διὸς κλαυθμηρισμὸς συγκρύπτηται καὶ μὴ ἀκούσῃ τούτου ὁ Κρόνος...")



Fig. 4.11: Amphora depicting a procession of Hermes, Apollo with kithara and the Muses with clappers towards seated Zeus. 520-510 BC. *Copenhagen* Inv. No. 3241 (after Paquette 1984, P3).

4. Seated musician/s (Cat. 16, 17, 18)

All the previous examples depict clappers and castanets placed directly in the hands of dancers or musicians in energetic stances, thus enhancing the feel for rhythmic movement. Cat. 16, 17 and 18 of the Rattle Group are the only instances showing seated figures in a row instead. As most scholars believe that the Rattle Group scenes represent a stage of some sort of funerary ritual performed indoors (see chapter 4.3.1), the seated variations of Cat. 16, 17 and 18 (syntactically connected with Cat.11 and 19) are thought to depict a similar instance (note that Cat.16 was found in a grave).

The playing of idiophones (especially bronze ones) would avert the spirit of the dead or purify the area where the deceased was mourned.¹⁰¹ Nevertheless, it is possible that any kind of loud noise might have been appropriate, and this would explain the noisy combination of clappers, rattles/clap-sticks and hand-clapping seen on Cat.16.¹⁰² The syntax of the compositions with enthroned figures underlines the ceremonial character of the performance. However, it should be noted that the scenes on Cat.16, 17 and 18 do not include iconographic elements with explicit funerary symbolism, unless we accept that the seated attitude is enough in itself to corroborate such a meaning.¹⁰³ It is not impossible that the painter has isolated the music

¹⁰¹ In the Latin Lemuria festival the head of the household clashed bronze vessels to scare off the dead and a noisy dance, the tripudium, was performed at funerary sacrifices (Smith 1996, 84). See also references in Needham 1967 for the connection of idiophonic performance with funerary rites.

¹⁰² Funerary use of clappers is recorded in North American tribes (*Survey* 7). In Greece, it is usually rattles that are associated with this practice as they are often found in graves, but the Siren playing clappers/castanets on Cat.42 may serve as evidence for the potential chthonic connotations of clapper performance.

¹⁰³ Rombos maintains that the deposition of enthroned terracottas in geometric graves certifies the implicit funerary symbolism of the seated painted figures of the Rattle Group (*Rombos* 289 ff.).

performance of idiophones and conducted singing because they are easily recognised musical practices performed in common religious, ritual or even secular context.¹⁰⁴

The ritual significance of *krotala* in fertility cults is not so clearly detected in iconography as in myth. Sachs has noted that bent sticks similar to the boomerang-shaped clappers or concussion sticks, were used as missiles by Egyptian hunters who “approached the papyrus thickets on the Nile banks, clapped their missiles together to scare up the water birds and then hurled them after the soaring game” (*History* 88). He also remarks on the similar use of sticks in Columbia to chase birds from the crops and to accompany a magical dance against them. Similarly, Blades refers to the habit of using clappers as bird-scarers during the Middle Ages.¹⁰⁵ Divine protection is commonly required for a successful hunt or growing crops; consequently, practical knowledge and experience is endowed with divine grace, which is passed on to the instrument and the act of playing it. This is how the rhythmic sound of concussion sticks and related instruments acquire magical powers. Practicalities such as providing steady rhythm at work,¹⁰⁶ or chasing birds away with clappers (and hunting them), are combined with the idea of clappers having magical properties enhancing fertility and ensuring protection. As such, clappers and concussion sticks were played at the dances honouring Hathor, the fertility cow-goddess, and are still employed today in tribal magical ceremonies (*Survey* 3 ff.).

Two Greek myths provide parallels for these practices: the labour of Herakles against the Stymphalian Birds and the battle between Pygmies and Cranes. In the various accounts of the former myth, Herakles scares the birds away with the sound emitted by a bronze *platage* shaken with one hand.¹⁰⁷ In one variation he subsequently kills them with his bow once he lifts them off the lake by means of bronze *krotala*.¹⁰⁸ Similarly, Pygmies are reported to resort to the sound of *krotala* in order to fight back against the attacking Cranes.¹⁰⁹ The Herakles myth apparently is reminiscent of prehistoric hunting and cultivation practices; with two

¹⁰⁴ See for instance the position of seated musicians in traditional music ensembles today (*NGDMI* ii, 353, 612).

¹⁰⁵ Clappers were also used by lepers to issue a warning signal or a scary sound (Blades 1984, 195).

¹⁰⁶ This is depicted for instance during grain and grape harvesting in Egypt, Old Kingdom (*History* 88 fig. 29, Manniche 1991, 19 fig. 7); accompanying field work with percussion is a wide-spread custom (Blades 1984, 160).

¹⁰⁷ Apollonius Rhodius *Argonautica* 2.1052-7 and Scholia in *Apollonii Rhodii Argonautica* 203.17-8; Pherecydes *Fr.* 32.3 (3F72); Hellanicus *fr.* 4F.104a; Diodorus Siculus *Hist.* 4.13.2.8-12.

¹⁰⁸ Pseudo-Apollodorus *Myth.* 2.93.1-7; Pausanias *Perieg.* 8.22.4.5 mentions the *krotala* and both versions.

¹⁰⁹ Hecataeus *Hist. Fragmenta* 1F328a-b.

exceptions, the old aspect of divine protection is emphasised, as the instrument is manufactured by Hephaistos and given to Herakles by Athena.¹¹⁰ In the same way, the tale of the Pygmies is thought by scholars to reflect situations and problems encountered by the Greek farmers, such as the protection of their crops from cranes and other birds (Sparkes 2000). Concussion sticks or boomerang-shaped one-hand clappers (Fig. 5.12b) are easily envisaged in the hands of farmers and hunters, but Hickmann proposed that in the Herakles myth more sophisticated forked cymbals are intended (1949c, 536). In any case, clappers of any sort are never depicted in the iconography of the Stymphalian Birds and so his theory cannot be verified or disproved.¹¹¹ Nevertheless, there are a few rare instances where Pygmies hold curved sticks during their battle with the Cranes, like on the François vase (ca. 570 BC) and on a mid-6th century Fikellura amphora, where the hinged end is also visible (Fig. 4.12).¹¹² This observation brings us back to the archetypal use of weapons-clappers discussed by Sachs.

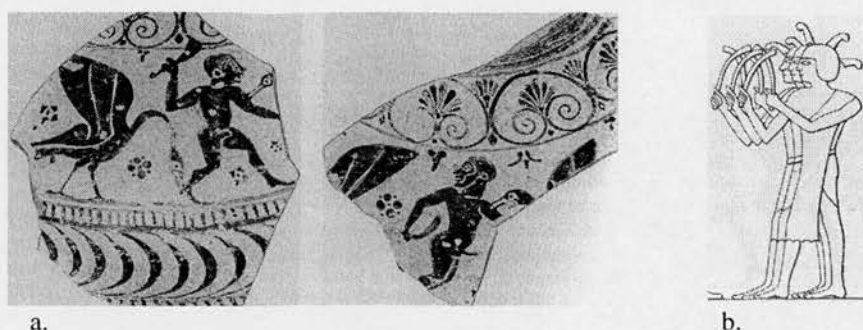


Fig. 4.12: Pygmies with bent sticks (one-hand clappers?) fighting the Cranes. Fikellura amphora, Münster University Museum of Archaeology Inv. Nos. 292 and 293 (after Sparkes 2000, fig. 5.3). b) Bent one-hand clappers (concussion sticks). Egypt, New Kingdom (after Lexová 2000, fig. 61).

Regardless of issues of terminology and iconography, the general context of both myths with their underlying layer of hunting and agricultural practices sheds much light on the use of *krotala* and related idiophones in Greece in connection with ancestral fertility rites, such as the Mother of Gods, Artemis or Potnia Theron, Dionysos and Korybantes (the nature-daemons). The myths hint that the use of clappers in the Aegean might be earlier than their eventual representations on art, and it is reasonable to suggest that they encapsulate ancient

¹¹⁰ Hellanicus Hist. *Fragmenta* 4F.104b.1-3 and Diodorus Siculus Hist. 4.13.2.9 maintain that Heracles makes it for himself.

¹¹¹ Herakles is usually depicted after the deed, offering the dead birds to Athena (see the Olympia metopes for instance). In general this particular labour was not popular with the artists.

¹¹² Single sticks are held like clubs and are not played like one or two-hand clappers. Their shape, however, is comparable to the Egyptian bent one-hand clappers (Fig. 4.12b) even down to the detail of the hinge at the bottom end. Sparkes discusses the element of parody in the representation of Pygmies that are shown as satyrs or minuscule Herakles, a fact that might account for the appearance of the club-like objects (Sparkes 2000).

indigenous practices. The early date of the Hellenicus passage indicates that we are not dealing with exchanges of myths and religious elements with Egypt in a post-classical cultural context. Furthermore, the form and playing technique of the Greek *krotala*, from their initial EIA representations and thereafter, refer back to a primitive archetype (see Natufian clapper-pendant, Fig. 4.3a), whose derivatives are rarely found in Bronze Age iconography, and which differ from the standard Bronze Age instruments seen on the state-controlled tomb representations of Pharaonic Egypt or on the luxurious artefacts of the Mesopotamian empires. It is possible that, in the particular circumstances of iconographic production in these areas, the artists of the palaces did not choose to depict the smaller and simpler types of clappers which must have also been in use. We should note Lexová's comment on the style of the 15th century drawing from Deir el Medineh (with V-shaped instruments similar to the Greek EIA representations), which she described as "rather unusual with the Egyptians" and "drawn away from the rigidity of traditional painting" (2000, 73-4). It is not unlikely that this drawing has captured a non-palatial, less official version of clappers and their performance, one that demonstrated the popular method of playing.

It is in this form, the simpler and smaller version, that clappers are also included in the Greek and Cypriote EIA musical iconographic repertoire. The EIA artists did not take up the already existing iconographic types of clappers, but they experimented with new iconographic forms that represented more accurately the shape and playing action of the actual instruments as they must have appeared in the Greek and Cypriote EIA performances, forms unseen or rarely depicted before this date in the palatial arts of the Mediterranean. This re-enforces the view that EIA iconography relies heavily on everyday events for inspiration, an opinion strongly put forward by Ahlberg in her analysis of the prothesis scenes (Ahlberg 1971). However, the Greek interest in representing clappers suddenly appeared in the 8th century and may well have been triggered by contacts with Egypt and exposure to Egyptian musical scenes during that period, a view that has also been suggested for the re-appearance of the prothesis scenes on LG Attic vase painting (Sheedy 1990).

The lack of Egyptian clappers or their representation in Cyprus is remarkable, given that several Egyptian and Egyptianising objects from Late Cypriote sites indicate that there was a notable degree of artistic exchange and cultural influence; however, scholars have remarked on the limited character of these influences, indicating trade contacts but not necessarily having a profound affect on the indigenous population (Åström 1984; 1989) to the level of

religion and musical activity.¹¹³ Although the motif of the Hathoric head is found in Cyprus from the Cypro-Geometric period, increasing in frequency in the Cypro-Archaic period with the deposition of Hathoric capitals and terracottas in Amathus, Paphos and elsewhere, it is thought to be borrowed from Phoenicia rather than directly from Egypt (Hermay 1985; Reyes 1994, 71, 81-2 with references), and the absence of the commonest Egyptian idiophones associated with the Hathoric cult militates against the possibility of a truly Egyptian cult on the island.¹¹⁴ Clappers do not appear before the 7th century in Cypriote iconography; like the Greek clappers, they attain the smaller and simpler form that may have already been in use locally, and were connected with indigenous rituals and practices. The iconography reveals Cypriote clapper performance in festive occasions, symposia (Cat.185) and possibly ecstatic dancing (Cat.42), but the ritual character of the instrument is not clear. The similarities in shape and playing technique of Cypriot and Greek clappers and the fact that they first appear almost simultaneously in both Cypriote and Greek iconography in the 8th-7th centuries suggest strong cultural contacts between the two areas, and a diffusion of similar instruments and musical practices throughout the population. These contacts must have started prior to the 8th century, most probably during the 11th century (when the Aegean type of lyre is also attested on the Kalathos from Kouklia) or even earlier, but had evidently solidified during the Geometric period.

Due to their intense cultic character, the newly-shaped EIA clappers were easily interwoven with some traditional motifs with religious semantic value, such as the processional motif with music accompaniment (including clappers) or the heraldic monsters. At the same time, EIA artists enrich the stock iconographic themes with new motifs related to the various performance contexts and practices that we have analysed, namely the cultic/orgiastic dance, the symposium and possibly the funerary rites. The EIA newly-introduced motif of the energetic female and male or satyr dancers with *krotala*, and the use of the symposium as a performance context for clappers, are both innovations that turn into extremely popular iconographic themes from the 6th century onwards.

¹¹³ Compare with neighbouring Canaan where a few specimens of Egyptianising clappers with Hathoric heads dated to ca. 1200 BC were found, but their rough workmanship and limited diffusion suggest that they were not widespread among the population but rather belonged to the higher local, Egyptian-influenced, priestly class (Braun 2002, 90).

¹¹⁴ See also below chapter 4.3.2 for the lack of *seistron* playing, the ultimate cult instrument of Hathor, in Cyprus. This view corroborates the argument against a possible military Egyptian occupation of Cyprus in the Cypro-Archaic period (Reyes 1994, 69 ff., esp. 84).

4.1.2 *Kymbala*: cymbals (concussion vessels)

4.1.2.1. Typology

Cymbals can be played in two different ways: a pair can be held by the hands and struck sharply against one another like clappers, or they can be supported at the centre and struck separately by a non sonorous stick, soft or hard (a common modern cymbal playing technique that is known since the 7th century AD), or even by the rim of the other cymbal (*Survey* 10; Hickmann 1949c, 487 fig. 20f; Fletcher & Rossing 1998, 652). Therefore, cymbals could be considered both as concussion and percussion instruments, depending on their mode of excitement. They are here classified as concussion, on the basis of the iconographic evidence from the Eastern Mediterranean that in all cases shows two cymbals being clashed against each other and never being struck by a stick, although the latter possibility should not be excluded.

Ancient and modern cymbals are made of metal (bronze and its alloys, tin and copper, sometimes with the addition of silver). They can be cast or non-cast (hammered), and in both cases they are the products of a complicated and technically demanding manufacturing process.¹¹⁵ As a result, they are not found in primitive societies (*Survey* 10) neither in the early stages of metalworking, and both the material and the quality of workmanship required would make them less accessible to the broad masses than other concussion idiophones. The earliest evidence for cymbals comes from Babylonian representations on bas-reliefs dated to the end of the 3rd millennium BC (*MiB-Mesopotamien* 70-3) and by the early 2nd millennium they are also found on relief decoration from Hittite Anatolia (*NGDMM* s.v. “Anatolia”, 388; DeMartino 1995, 2662). It is believed that from Mesopotamia they spread north, west and east, to a great extent during the Late Bronze Age,¹¹⁶ and especially in the Iron Age when

¹¹⁵ See the description of the traditional forging process of steel cymbals in Turkey in Blades 1984, 170 ff.; Picken 1975, 19; for cast cymbals see DiMuzio 1995.

¹¹⁶ Cymbals dated to the second half of the 2nd millennium BC are found in Ugarit (Caubet 1987, 740 ff., fig. 5; 1996, 10, 25, fig. 1), in Hazor (Fig. 4.15a; Yadin 1960, pl. XC:16, CLXII:2, 3), Megiddo (Fig. 4.13a), Tell Abu Hawam, Beth Shemesh and other Levantine sites (Braun 2002, 21, 107 ff.; Spycket 1972, 207; Sellers 1941, 46 fig. 12c; Caubet 1994, 131), on the Ulu Burun shipwreck (CY.17; Bass 1986, 288-9, fig. 28), in Cyprus (CY.6) and possibly in Crete (CY.5) In Egypt metal cymbals do not appear before the 9th-8th centuries BC (Duchesne-Guillemin 1980-1, 289; Braun 1997, 73) but they must have been used earlier, since texts from the Middle Kingdom mention cymbals being played by Isis (Manniche 1991, 68). Shell cymbals are reported from the New Kingdom (XVIII Dynasty; *Survey* 10; *MiB-Ägypten* 165) and contemporary representations on a 15th century BC funerary relief and an ostrakon are thought to depict cymbal players (Hickmann 1949c, 472-3, fig. 12-13; Manniche 1991, 128).

cymbals become popular further into the Mediterranean and Europe¹¹⁷ as well as in the Far East.

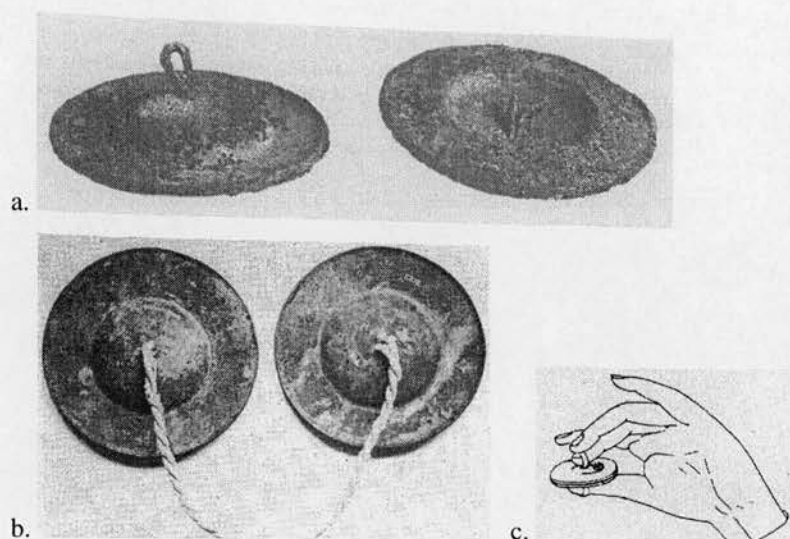


Fig. 4.13: Plate-cymbals [Variation (a)].

a) Two-hand cymbals from Megiddo with bent rim and split loop-pin. Diam. 0.08-0.12. 12th century BC (after Braun 2002, fig. III.27).

b) Two-hand cymbals from Egypt. Late Period (after 850 BC). Diam.: 0.147, Th.: 0.001. BM Inv. No. 6373 (after Blades 1984, pl. 60).

c) One-hand finger cymbals (after Hickmann 1949c, fig. 45).

As concussion idiophones, cymbals are played in pairs. Throughout their history they maintained a consistent form of circular vessel characterised by a central concavity. Many scholars simply refer to a small and large type (Braun 2002, 109), but Hickmann (1949c) proposed the following typology, based on the variations of their shape:

a) Plate-cymbals, in the form of thin circular plates with a central depression (boss, cup or dome), usually perforated in the middle so that a ring, handle (of wood or leather) or cord can be attached to facilitate grip. This is the commonest type, also found in modern instruments. These cymbals have a substantial flange, with the central boss not exceeding 3/5 of the total dimension of the instrument. Depending on their dimensions, they can be held either one in each hand or both in the same hand mounted on the thumb and middle finger (finger cymbals; Greek *krembala*). When played with both hands, their flat surfaces can be struck horizontally, vertically or with the rim of one cymbal beating the underside of the

¹¹⁷ For the Early Iron Age, Cyprus (CY.8, 9) and Nimrud have yielded a variety of cymbals dated to the 9th-8th century BC (Rimmer 1969, pl. XXI; *MiB-Mesopotamien* 110); cymbal playing is depicted on Neo-Assyrian reliefs from Nineveh (*NGDMM* xii, s.v. "Mesopotamia" 199 fig. 5; *MiB-Mesopotamien*) and possibly Carchemish (*NGDMI* i, s.v. "Anatolia", 390 fig. 6). Securely identified cymbals and representations of cymbal playing appear in Greece from the Archaic period onwards. Cymbals disappear from Phoenicia/Canaan between the Early Iron Age and the Hellenistic period, but their use is again widespread in the Hellenistic-Roman Period (Braun 1997, 73; 2002, 108). Egypt has yielded a great number and variety of cymbals from the Roman period onwards and they were also used in Coptic religious rites (Anderson 1976; Ziegler 1979, 63 ff.; Hickmann 1949 and 1949c). Cymbals are absent from Etruscan musical scenes (Jannot 1988, 319); they became popular with the Romans in the

other.¹¹⁸ The larger varieties are two-hand cymbals (Figs. 4.13 a, b) and can sometimes reach up to 0.20 in diameter, whereas the smaller ones (diameter up to 0.06) may constitute one-hand finger cymbals (Fig. 4.13c).

(b) The second variant is the cup-cymbal. In its purest form it lacks the flange and maintains only the depressed part, with the rim of the cup being the point of contact when the cymbals are clashed together (Hickmann 1949c, 3 ff.; *Survey* 10-11, 13; Blades 1984, 166). These cymbals usually have a semicircular shape like a cup or bowl, sometimes with a small knob or loop handle on the top (Fig. 4.14 a and c).¹¹⁹ In some instances the handle is omitted and the palm grips the top part of the instrument (Fig. 4.14b). In the Levant funnel-shaped cup-cymbals are also found, either with a knob-handle (Fig. 4.14d) or with a long, thin and pointed handle (Fig. 4.14e).¹²⁰ Type (b) is a two-hand variety held horizontally and thus producing a shimmering tremolo sound.

Sachs and Hickmann maintained that the shape of Variation (a) is an evolution from the archetypal Variation (b), which in turn is associated with the bell-shape (Hickmann 1949c, 505 ff.). Hickmann argued that the second, cup-shaped variety was associated with drinking vessels, a fact that indicates precisely the origin of cymbals as musical instruments emerging from practices of drinking and sound making during religious rites.¹²¹ The double use of metal bowls as drinking vessels and musical implements is noted by the late antique writer Clement of Alexandria (1st-2nd century AD.) when he describes the mysteries in honour of Attis and

late 1st millennium (*MiB-EtrurienRom*) and remained in use in Europe throughout late antiquity and the Middle Ages (Blades & Montagu 1976, 16 ff.; Blades 1984).

¹¹⁸ The sound is loud and powerful when the inner surfaces of the cymbals are vertical and struck with a horizontal movement, whereas a softer tremolo sound is emitted when the rims are horizontal and struck with a vertical movement (*History* 122; Hickmann 1949c, 487 ff.).

¹¹⁹ See also the Neo-Assyrian relief representation of sizeable cup-cymbals with handle that are played vertically in *MiB-Mesopotamien* 122, fig. in text.

¹²⁰ Rimmer 1969, 39; Hickmann 1949c, 512 ff., figs. 35-6; *MiB-Mesopotamien* 110, 120, pls. 126-7; Blades 1984, 166 figs. 27-28. See also Hickmann 1949c for discussion of Hittite antecedents of the funnel-shaped cymbal and for the cup-cymbals with a long, thin handle used in the Coptic Church (493, fig. 25). Muscarella illustrates a pair of cymbals comparable to those on Fig. 4.14e with a long handle, but with a flat disk-shaped flange instead of a funnel-shaped body. He reports that similar cymbals have been found in tombs at Horoztepe and Alaca Hüyük, but does not mention their date (Muscarella 1988, 402 nos. 529a, b).

¹²¹ As already noted (chapter 4.1.0 on terminology), cymbals were also known as κοτύλαι (Athenaeus *Deipnosophistae* 11.57 [Eustath. *Hom. Il.* 22.494]), the latter being a term indicating a concave object (Schol. BT *Hom. Il.* 23.34TM “κοτύλας ἐκάλουν πάντα τὰ κοῖλα”). A similar association is observed in Hittite texts, where the term for liquid container (*huhupal*) also stands for cymbals (DeMartino 1995, 2662). Deep and rimless cymbals, the Latin *acetabula* (vinegar cups made of bronze, silver and gold alloy) and the Byzantine *oxybapha*, are listed among idiophones in Early Medieval literary sources (*Survey* 13; Blades 1984, 174; DiMuzio 1995, 169).

Kybele. The rite required drinking and eating from a cymbal and a tambourine respectively, both instruments being the symbolic attributes of the two deities.¹²²

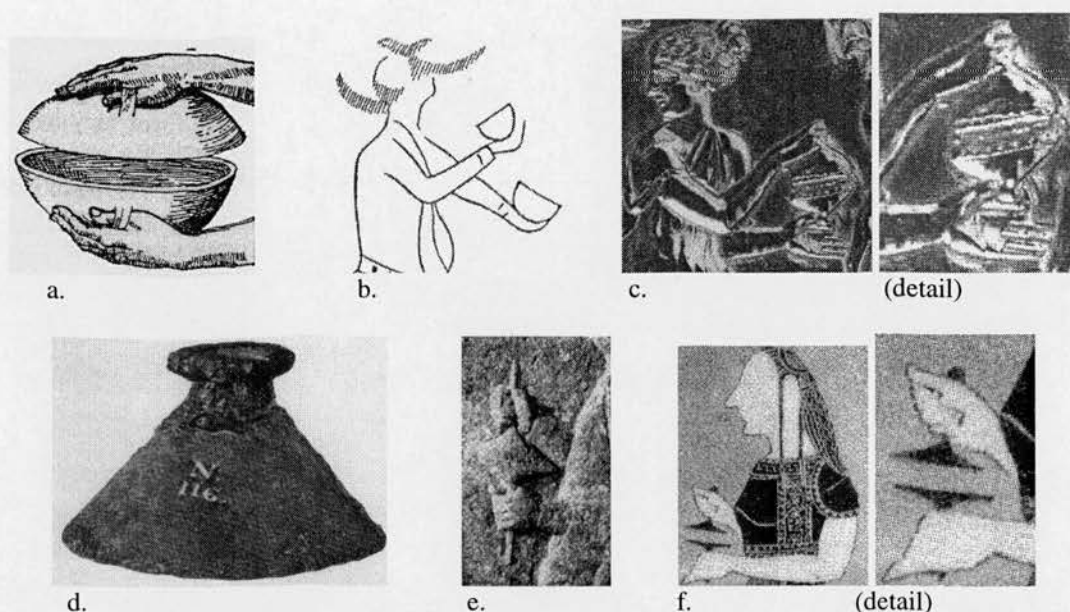


Fig. 4.14: Cup-cymbals [Variation (b)]. a) Bowl-shaped with loop handles. Middle Ages (after Blades 1984, fig. 29). b) Bowl-shaped without handles depicted on an ostrakon from Egypt. XVIII Dynasty, Cairo Museum (after Hickmann 1949c, 23 fig. 13). c) Bowl-shaped with knob handles. Detail from a Roman silver dish. 4th century AD. (after Blades 1984, pl. 72). d) Funnel-shaped with knob handle. From Nimrud. Diam. 0.063. 9th-8th century BC. BM N116 (after Rimmer 1969, pl. XXI:a). e) Funnel-shaped with long handle. Neo-Assyrian relief from the Palace at Nineveh, 704-681 BC (after *MIB-Mesopotamien* 120, figure in text). f) Funnel-shaped with long handle. François vase. ca. 570 BC. Florence Archaeological Museum Inv. No.4209 (after Carpenter 1997, pl. 12B)

Rimless cup-cymbals are not common in the archaeological record of Greece and Cyprus. Small funnel-shaped cup-cymbals (about 0.06 in diameter) are depicted only once on the François vase (ca. 570 BC), where they are played horizontally by a nymph (Fig. 4.14f) in the same manner that is depicted on the Neo-Assyrian relief from Nineveh a century earlier. No actual examples of this type have been found in the Aegean and it can only be inferred from the representation that this Levantine variety was known in Greece in the early Archaic period (see also chapter 4.1.2.2).¹²³ The only bowl-shaped artefacts with a knob handle that could be interpreted as bowl cup-cymbals come from Delphi (CY.11). According to the publication, they are of Archaic date. Perdrizet does not give any evidence for his explanation of these

¹²² Clement of Alexandria, *Exhortation to the Greeks* 11, 14P "...ἐκ κυμβάλου ἔπιον· ἐκ τυμπάνου ἔφαγον...".

¹²³ Carpenter maintains that the frieze on the Françoise vase representing the return of Hephaistos to Olympus and including a nymph playing cymbals derives from earlier visual models (Carpenter 1997, 43), a fact that might suggest that the funnel-shaped cup-cymbals could have been known in Greece by the 7th century or earlier.

objects as “door ornaments” (1908, 123), which leaves scope for an alternative interpretation. The Delphi “bowls” can be compared with the identical cup-cymbals depicted on a 4th century AD Roman silver dish in the British Museum (Fig. 4.14c); these are held by a similar knob handle and played horizontally, as well as with the much earlier Egyptian representation of deep hemispherical bowls (Fig. 4.14b).

Bowl-shaped cup-cymbals may complement the broad concavity with a thick rim and a very narrow flange. Very broad domes, although not so deep as those of rimless cup cymbals, characterise some of the earliest surviving cymbals dating to the LBA, like those from Hazor (Fig. 4.15a) and Ulu Burun (CY.17) where the boss covers the greatest part of the total diameter of the instrument. The extremely narrow flange is bent sharply upward exactly at the joint with the boss, confining the struck area to the underside rim of the boss. The same feature is presented on the Late Cypriote pair of cymbals found in Pyla-Kokkinokremos (CY.6) that obviously follow the Levantine prototype of a bowl-shaped instrument with prominently everted rim. Instruments with a clear bowl-shape and a narrow flange or rim are also known from 9th-8th century Nimrud (Rimmer 1969, pl. XXI:c, d; *MiB-Mesopotamien* 111, figs. 124, 125) and Egypt (Hickmann 1949c, 460 ff., figs. 5-7; Ziegler 1979, 67 ff. nos. 88-91; Anderson 1976, 24 ff., nos. 24, 26, figs. 36, 38). One Egyptian example also has a dedicatory inscription to the Great Goddess on the cup (Fig. 4.15b).

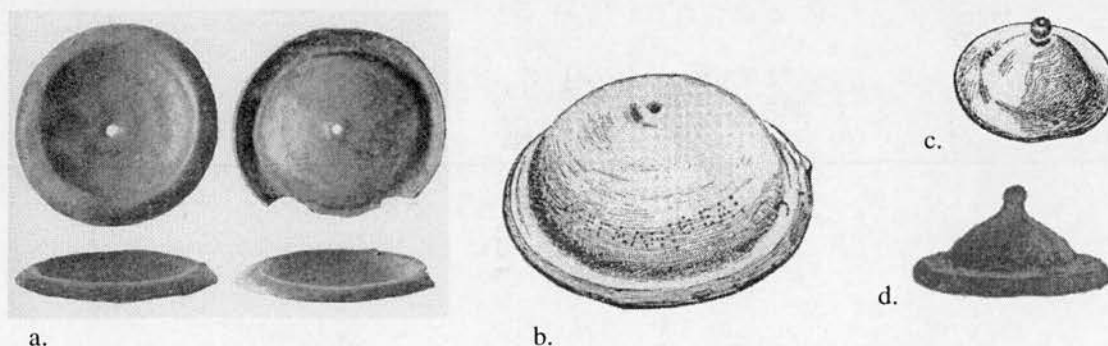


Fig. 4.15: Cup-cymbals with flange/rim. a) From Hazor with narrow bent flange. Diam: less than 0.10. (after Yadin 1960, pl. CLXII:2, 3). b) From Egypt, with narrow flange and thick rim. Diam.: 0.11 (after Hickmann 1949c, 461, fig. 7). c) Small cup-cymbal with knob-handle from Egypt. Diam.: 0.047 (after Hickmann 1949c, 517, fig. 38). d) Possible cup-cymbal with knob-handle from Delphi (after Perdrizet 1908, 124, fig. 461).

This variation of bowl-shaped cup-cymbal with narrow flange and upturned rim is of small/medium size with diameter in the range of 0.045-0.11. It has a perforated dome suggesting that a handle was attached, but representations show that in the absence of a handle

the boss itself would provide the hand-grip (Hickmann 1949c, 469, fig. 11b). In the smaller examples (often described as *cymbalettes*) the handle that facilitates grip can be cast with the body of the instrument as a knob-shaped excrescence (Fig. 4.15c). Seven further objects from Delphi, classified as “door ornaments” by Perdrizet, have the same body characteristics (deep central depression, thick rim), a cast knob handle and a diameter between 0.03-0.06 (Fig. 4.15d; Perdrizet 1908, 123 no.670). They are comparable in form and dimension with the abovementioned small bowl-shaped Egyptian cymbals with a knob handle and could therefore be also identified as small cymbals.¹²⁴ This interpretation is supported by iconographic evidence. A 6th century BC bronze mirror handle from Cyprus, now in New York, portrays a cymbal player with a similar type of cymbals, small in diameter (no more than 0.06), with thick rim and a deep central dome (Fig. 4.16).¹²⁵ It should be noted that, despite their small size, these are not one-hand finger cymbals and the Cypriote bronze figure holds one cymbal in each hand (presumably from some sort of handle), the inner sides of the pair being struck with a horizontal hand movement, just like the larger two-hand plate-cymbals.¹²⁶



Fig. 4.16: Small cup-cymbals depicted on a mirror handle from Cyprus. Third quarter 6th century BC. *MMNY* Inv. No. 74.51.568 (after Rolley 1967, no. 60).

The majority of the surviving cymbals from the Greek and Cypriote archaeological record present a variety of compromises between the plate form and the cup form with flange/rim. Securely identified plate-cymbals come from Arta (CY.2), Athens (CY.3), Corinth (CY.4),

¹²⁴ Perdrizet compared these objects with the finials of nails from Olympia, Aegina (Aphaia) and the Argive Heraion which have similar shape and they were door ornaments. These iron nails are not entirely hollow inside but have bronze and lead fillings for the attachment of the pointed shaft which is preserved (Furtwängler 1906, 421 no. 225, pl. 115, 117:18, Waldstein 1905, 326 nos. 2749, 2750, pl. CXXXIV). Perdrizet, however, mentions only the concavity without any fillings or shaft remains on the underside of the bosses from Delphi.

¹²⁵ Behn 58, pl. 34:79; *Aign* 249 n.3; Rolley 1967, no. 60. Behn considers the figurine to be Phoenician; contra Tsountas 1892, 11 (who compared it with similar Laconian mirror handles).

¹²⁶ Similar small cymbals are depicted on the Dioscourides mosaic from Pompei, now in Naples (*MiB-EtrurienRom* 96 fig. 53). In Late Antiquity small cup-shaped cymbals were also attached on metal or wooden prongs, the so-called forked cymbals (Fig. 4.2c; Anderson 1976, 24 no. 27, figs.39-40; Hickmann 1949c, fig. 47; Ziegler 1979, 68-9 nos. 92-3). Blades notes that cast small cup-cymbals of this type in the British Museum have a rather thick wall (0.003) and produce well-defined notes (Blades 1984, 167, pl. 62).

Demetsana (CY.12) and there are also some examples without provenance held in various museums (CY.18, 19). They all have a broad and round central boss and belong to the small/medium variety (between 0.06-0.11 in diameter), although the proportions of their parts and other specifications (diameter, depth and outline of boss, width of flange) are not fixed and vary from specimen to specimen. Some still preserve the chain connecting the two cymbals of a pair, either attached to a loop passing through the central hole (CY.2) or mounted on a dome-shaped part at the top of the boss (CY.18, 19). Dedicatory or proprietary inscriptions are usually found on the flange (CY.3, 12, 18, 19) and fine incised decoration is sometimes applied on the boss and/or the flange (CY.1d, 4, 15, 18, 19).

Many examples of hammered bronze bosses sharing some of the abovementioned characteristics of plate-cymbals have been found in burials and sanctuaries in Greece and Cyprus, dating from the 12th century BC onwards. They are between 0.06-0.30 in diameter, with a central depression perforated in the middle and therefore they have often been identified as cymbals. Some of them have buttons, elaborate knob-handles or pointed spikes attached through their central perforation. The depressed bosses can have various sizes and forms: angular or rounded in profile, high or low (without significant concavity or no concavity at all), sometimes decorated with concentric circular depressions; similarly, the width of the flange can vary and its modelling can be flat or concave.¹²⁷ The bronze bosses are sometimes found in pairs, but deposition of a single boss or groups of three or more (at Moulia, Kaloriziki and Vergina for instance) are not uncommon. The use of these bosses

¹²⁷ Bronze bosses are known from the sanctuaries at Olympia (110 examples, all with heavy pointed knobs or spikes, often with angular bosses and central [sometimes multiple] perforations; Fellmann 1984; Furtwängler 1890, 70), Delphi (CY.10, 11; Perdrizet 1908, 107 no.540 (concentric disc), 122 nos. 660, 662 (angular boss and knob); *BCH* 84 (1960), 404 (round boss and knob); Fellmann 1984, 80 ff., pl. 44:5, 6 for more knob handles and bosses), Heraion at Argos (CY.1), Athana Lindia at Rhodes (CY.15), Heraion at Perachora (CY.14), Kalapodi (angular boss and knob; Fellmann 1984, 92-3, fig. 27), Dodone (three perforations at narrow round boss, incised decoration with circles and zig-zags; Snodgrass 1964, 41 A48; Fellmann 1984, 96-7, fig. 29). From a LC hoard at Pyla-Kokkinokremos, Cyprus (CY.6). From LBA tombs at Moulia-Crete (CY.5), Kaloriziki-Cyprus (CY.7) and Tyrins (Sub-Mycenaean, with angular boss and spike; Verdelis 1963, 12, fig. 6). From PG tombs at Kerameikos (three examples, Inv. No. M49 with spike, Inv. No. M12 with knob, Inv. No. M13 with perforated round boss; *Kerameikos IV*, 4, 27, 32, 43, pl. 37; Fellmann 1984, 72 ff., fig. 14), Skyros (angular boss with spike, *AA* 1936, 229 figs. 2, 3), Vergina (very small, with low round and angular bosses, buttons/knobs and relief decoration; *Ergon* 1958, 83; *Ergon* 1959, 56; *BCH* 82 (1962), 800-2; Fellmann 1984, 76-7 fig. 18-19) and from an apsidal house at Nichoria (perforated round boss; Fellmann 1984, 75, pl. 44). From CG tombs at Amathus and Palaepaphos-Skales in Cyprus (CY.8, 9; *SCE II*, 107, pl. 24:53). From Geometric graves at Cauchitza in Macedonia (Snodgrass 1964, 40 nos. A30-32), Athens-Kynosarges (with knob; Fellmann 1984, 90, pl. 45:4), Kavousi in Crete (angular boss with spike; Snodgrass 1964, 40 A25; Fellmann 1984, 91 fig. 26); from a house at Vrokastro (with four diametrically opposed holes on the rim; Snodgrass 1964, 40 A24); from the Idaean Cave in Crete (relief decoration, non-perforated boss; Snodgrass 1964, 41 A54, pl. 23). From Isthmia (flat disc, depressed

has been the point of debate, as their general form is associated with that of plate-cymbals, but it is also compatible with that of metal reinforcement for the central part of a shield (an idea strongly put forward by Snodgrass 1964). This may well be the case with the bosses from Olympia, Kaloriziki (CY.7 large boss), Kerameikos (M49, M12), Tyrins, Skyros and Kavousi where pointed spikes or particularly heavy and ornate handles were attached at the top of the boss.¹²⁸ Another rather consistent feature of these particular examples is depressions with more or less angular profile, a feature which is not common with cymbals. Scholars have argued that the corpus of bronze bosses should be interpreted on the basis of their find context and the arrangement of the artefacts in the deposit because their morphological features are not always conclusive in themselves (Snodgrass 1964, 44; Fellmann 1984, 101). Hence, alternative uses have been suggested for the perforated bosses and discs: horse trappings, belt buckles (in particular the small buttoned bosses from Vergina decorated with concentric circles), breast plates, ornaments or votive miniature shields, according to their specific features and the circumstances of their deposition.¹²⁹

Naturally, more than a single interpretation is needed to explain the diversity of material and this fact calls for special attention to the morphological features that could help identify those bosses that could have been used as cymbals. The shared characteristics of modern as well as ancient Egyptian, Levantine and Classical/Hellenistic Greek cymbals indicate that the key elements for their identification are the round shape of the concavity, the thickness of the metal, the special modelling of the flange and simple handles or a single central perforation for the attachment of a chord.

The presence of a round central boss is important for the sounding of plate-cymbals. The main vibrating part of the cymbal is the flange and the boss acts as a node (point of rest in a vibrating body); therefore the boss is usually low (0.01-0.016 high) and its width can vary considerably.¹³⁰ The purpose of the boss is to create a steady frame for the vibrating flange and reflect the bending waves. The support provided by the rigid circular rim of the boss enables the flange to continue vibrating in its periphery without any damping contact (Picken

concentric circles; *Hesperia* 27 (1958), 35, pl. 17d). A list of the material is given in Snodgrass 1964, 39-41 and more examples are discussed by Fellmann 1984 in connection with the bosses from Olympia.

¹²⁸ For considerations regarding the attachment of the bosses onto the shield see Fellmann 1984, 104 ff.

¹²⁹ For details on the various interpretations, discussion of the diverse material and of the find context see Snodgrass 1964, 39 ff., Fellmann 1984, 99 ff., Rolley 1988, 349 ff.

¹³⁰ The concavity does not act as an air resonator (a function assumed by the hollow part of the castanets for instance), since the two cymbals need to detach immediately after their impact in order to maintain the sound. The width of the boss can vary, the most balanced solution being 2/3 in proportion to the total diameter of the plate-cymbal, but cymbals with ratios of 2/5, 3/5 or 4/5 are also found.

1975, 18; Hickmann 1949c, 453, n.1; Fletcher & Rossing 1998, 650-3). For this reason, cymbal bosses can have a marked rim and create an angular profile with the flange (as is the case with most cymbals catalogued here in Appendix-II),¹³¹ but it is also common for the boss to flow smoothly into the flange with a curved profile.¹³² The flow of vibrations, however, would not benefit from sharp angles and corners on the boss itself or from the attachment of heavy handles (often requiring multiple perforations at the top of the boss). In particular, the contact with heavy handles would considerably dampen the sound.¹³³ Consequently, where these features are seen (like the examples from Olympia, Delphi, Kavousi, Kalapodi and elsewhere, see n.127), the bosses should *not* be considered as cymbals.¹³⁴

The tone quality and sound volume of cymbals is determined by the thickness, weight and workmanship of the metal as well as by the inherent qualities of the used alloy. Modern plate-cymbals have indeterminate pitch, but the thickness of metal and the size of the flange influence their frequency spectrum and the overall acoustic result.¹³⁵ In contrast to the modern cymbals, experiments with ancient plate cymbals have shown that these have a determinate pitch and a resonant bell-tone sound, and lack the simmer or “splash” quality of modern cymbal sounds.¹³⁶ The acoustics of ancient cymbals have not been studied to a great extent, but it seems that the main reason for their bell-like sound is the fact that they were much thicker than modern cymbals, the metal plate of which is usually not more than ½ mm. thick. Unfortunately, most publications do not give information on the thickness of the artefacts

¹³¹ See cymbals in London (CY.19) and Heidelberg (CY.18), as well as those from Arta (CY.2), Corinth (CY.4), Pyla-Kokkinokremos (CY.6), Palaepaphos-Skales (CY.9), Demetsana (CY.12), Argos (CY.1d), Delphi (CY.10) and Perachora (CY.14). This feature is also seen on the bosses from Mouliana (CY.5), Kaloriziki (CY.7) and Amathus (CY.8), and on the cymbals from Megiddo (Fig. 4.13a).

¹³² This is the case with bosses from Argos (CY.1a-c), Lindos (CY.15) and Sparta (CY.16) as well as with Levantine cymbals from Ugarit (Caubet 1987, 743, fig. 5), Hazor (Fig. 4.13b) and Ulu-Burun (CY.17).

¹³³ Snodgrass is hesitant to dismiss the handles as a cymbal feature (1964, 44) but the particular handles seen on the bosses from Olympia and Delphi for instance are too heavy and ornate to be compared with the delicate, long spiky handles shown on the Levantine and Archaic Greek cup-cymbal representations discussed above (Fig. 4.14 e, f). A view of a compact, yet much simpler cymbal handle resembling the classical examples CY.18 and 19 can be seen on an early 4th century krater in Naples (Paquette 1984, 212, P13).

¹³⁴ Fellmann also rejects the cymbal interpretation for the material from Olympia on similar grounds, but without detailed discussion (Fellmann 1984, 100 ff.).

¹³⁵ High frequencies radiate from thinner cymbals of smaller diameter (resulting in a simmer or “splash” sound characteristic of cymbals), whereas heavy cymbals with wider diameter initially radiate low frequencies (and thus a crisp bell-quality sound) that only gradually transfer into higher frequency modes which will eventually create a high pitch shimmering sound output (Campbell & Greated 1987, 448-9). Therefore, heavier and wider cymbals give a false impression of lower pitch.

¹³⁶ Blades reports that the pair of cast Greek cymbals in London (CY.19) with little less than 0.10 diameter produce a clear F⁷ pitch, whereas the slightly bigger cymbals in Hague (CY.20b) with just over 0.10 diameter give a note between 1-2 tones lower (D⁷-E⁷) (Blades 1984, 179).

identified as cymbals (see Appendix II-Cymbals), but when they do, the plates are thicker than the modern ones at least by 1 mm, which is enough to alter the sound.¹³⁷

As already noted, the flange of the plate-cymbals is characteristic. On small/medium cymbals with diameter between 0.06-0.11, the flange tends to be turned upwards or to have a concave outline. We have already noted the prominently bent flange seen on the LC cup-cymbals from Pyla-Kokkinokremos (CY.6), which is comparable to the earlier example from Ulu Burun (CY.17). On instruments of the 1st millennium BC the flange is concave on the underside and the rim slightly bent up so as to mark the point of contact when the cymbals were clashed. Such is the case with the Classical-Hellenistic cymbals from Demetsana (CY.12) and London (CY.19); the same modelling of the flange is seen on the bosses from Argos (CY.1) and Lindos (CY.15) and thus they can be securely identified as cymbals.¹³⁸

In many cases the rim is prominently bent up and slightly thicker, like on the cup-cymbals from Arta (CY.2), London (CY.18) and Heidelberg (CY.19). Similar is the modelling of the two small lead bosses from Sparta (CY.16) with narrow concave flange and thicker bent rims; these were left unexplained by their excavators and can now be identified as cup-cymbals.¹³⁹ They could be played with two hands, but their small size (0.035-0.04 in diameter) would also allow them to be played as one-hand finger cymbals, unless they were mere votive lead replicas of the actual instrument. The feature of thick and upturned rim is also found on larger plate cymbals, like the examples from Megiddo and Egypt seen on Fig. 4.13a, b.¹⁴⁰ On these grounds, the bronze boss from Perachora (CY.14) with wide flat flange and thicker rim can now be identified as a plate-cymbal.¹⁴¹ The same might be the case for the pair of bosses from Delphi (CY.10), although from the published photograph the angle of the rim is not clearly discernible; the simplicity of the outline of CY.10 and the proportion of the round dome to the flange at about 2/3 of their total diameter are features often met with Egyptian and Greek

¹³⁷ For instance the hammered cymbals from Argos (CY.1) have a range of thickness between ½-1½ mm. and the hammered example from Palaepaphos-Skales (CY.9) is 1-1½ mm. thick. The Egyptian plate-cymbals shown in Fig. 4.13b are 1 mm. thick. The flange of the small cup-cymbal from the Ulu Burun shipwreck (CY.17) is estimated to have a thickness of 2.5 mm. Small Egyptian cast cup-cymbals in the British Museum, which according to Blades produce “well defined notes”, have an even thicker wall, reaching 3 mm. (Blades 1984, 167, pl. 62).

¹³⁸ These can be also compared to the cymbals from Hazor (Fig. 4.13b; Yadin 1960, pl. XC:16) and to Egyptian cup-cymbals in the British Museum (Anderson 1976, 24-5, nos. 24, 26, figs. 36, 38).

¹³⁹ The Spartan examples belong to the Lead VI variety dated between 425-250 BC. In the publication they are described as discs that “do not appear before this period and have no obvious interpretation” (Dawkins 1929, 279).

¹⁴⁰ See also the plate-cymbal with flat flange and sharply bent rim in Hickmann 1949c, 459, fig.4.

¹⁴¹ Described by the excavator as a “decorative disc” (Payne 1940 (I), 183 no. 22).

cymbals and thus support the identification of the Delphi bosses as concussion instruments.¹⁴² Furthermore, some cymbals of exceptional workmanship present in addition to the concave flange a special modelling of the rim, not thicker this time but slightly depressed and turned on the underside, as in the examples from Argos (CY.1c), Demetsana (CY.12) and Lindos (CY.15).

In contrast to the examples discussed so far, the flange of the deformed Cypriote boss from Palaepaphos-Skales (CY.9) may have had a slightly conical inclination, possibly a moderate adaptation of the contemporary Levantine cymbals with funnel-shape (Fig. 4.14d). The particularly narrow dome of CY.9 could also be explained through a comparison with the modelling of the upper part of the funnel-shaped cymbals. A slightly conical profile with a narrow central dome also characterises modern orchestral cymbals (Campbell & Greated 1987, fig. 10.36).

Finally, some bronze bosses appear to have a very simple outline consisting of a broad flat flange and a rather narrow round central dome ($1/3$ or $2/5$ of the total diameter of the object), with a sharp profile at the joining point with the flange. Such is the outline of the examples from Moulia (CY.5), Kaloriziki (CY.7), and Amathus (CY.8).¹⁴³ The Moulia bosses are also decorated with small punctures on the rim circumference and four circles on the flange; they were found on the chest of the deceased and were initially interpreted as cymbals (Xanthoudides 1904, 46). The Amathus bosses were left unexplained in the publication; they preserve a pin in their central perforation, projecting inwards. The three Kaloriziki bosses were described as shield bosses (McFadden 1954, 140). They were found close together in a plundered tomb, surrounded by straps of metal; the larger boss also had a spike (a heavy pin with ring) attached to the central hole, but no such spikes were found for the two smaller perforated bosses. The identification of these artefacts as cymbals has been strongly disputed as they are found in burial contexts along with weapons (see entries in Appendix II). Snodgrass has argued that these were shield bosses accompanying warrior burials, based on the presence of swords and spearheads also deposited in the tombs and on the evidence of the reconstruction of the three similar Kaloriziki bosses as part of an 8-shaped shield (Catling 1973). He proposed further that the four Moulia bosses were detached from the shields in

¹⁴² For examples where the boss is $2/3$ of the total diameter see CY.1, 12, 14, 18, 19; also Egyptian cymbals in the British Museum (Anderson 1976, 23-4 nos. 22, 23, figs. 34, 35) and in Cairo (Hickmann 1949c, 456 fig.1 bottom, 464 fig. 9 top left).

¹⁴³ Similar to these bosses are the examples from Kerameikos (M13 from tomb 43, presumably a male burial) and Nichoria (from an apsidal house) that we have already mentioned (Fellmann 1984, 73-5, fig. 16, pl. 44).

order to be placed on the chest of the deceased in the larnax and that they could belong to a single shield, following the Kaloriziki model (Snodgrass 1964, 48).

The arguments for the shield-boss theory are important, especially since these objects do not present the characteristic curves in the modelling of the flange and rim found on the majority of cymbals that we have discussed. It should be noted though, that some Egyptian plate-cymbals present precisely the features seen on the bosses from Moulia, Kaloriziki and Amathus (and the similar objects from Nichoria and Kerameikos). These cymbals have a particularly broad flat flange (without additional modelling or an up-turned rim) and a narrow round boss just 1/3 of the total diameter (Fig. 4.17). They belong to the large plate-cymbal variety, with diameter between 0.13-0.20 (Hickmann 1949c, 455 ff.). The Moulia bosses could fit into this category as they are 0.19 in diameter, but those from Amathus, Kerameikos (M13) and Nichoria are just 0.11-0.12, whereas the two smaller examples from Kaloriziki (without spikes) are less than 0.10.¹⁴⁴

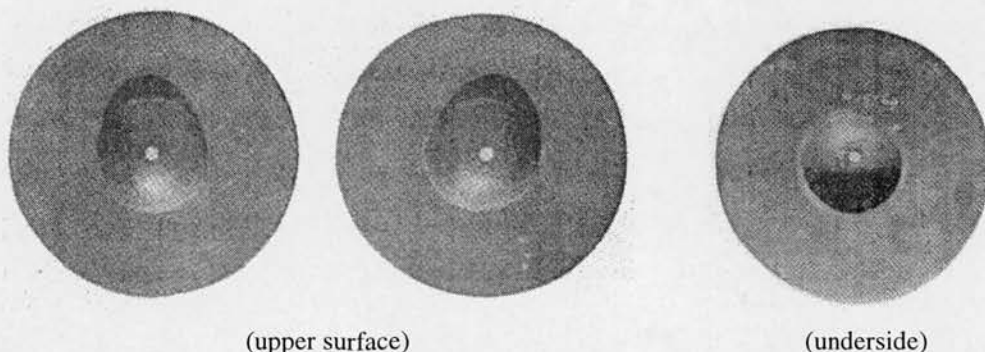


Fig. 4.17: Pair of Egyptian large plate-cymbals with flat flange decorated with incised concentric circles. Underside shows no concavity at the flange. Diam.: 0.155; Ht.: 0.021. Cairo Museum Inv. No. 69251a, b (after Hickmann 1949c, fig.1 top, underside: fig. 9 top).

Despite the long lasting debate over the nature of these objects and the strong arguments supporting the shield-boss theory, recent scholarship still refers to the Moulia bosses as cymbals (*Aegean* 65, *Dons* no.12).¹⁴⁵ If this was indeed their function, the Moulia cymbals would be the earliest evidence of this instrument in the Aegean dated to the 12th century BC. This date is in agreement with the earliest Cypriote cymbals from Pyla-Kokkinokremos, whose interpretation as cymbals should not be doubted, as has been shown from our

¹⁴⁴ It goes without saying that the large Kaloriziki boss with spike is not a cymbal but a shield boss. For terracotta models of shields with spikes from Cyprus see *Coroplastica* vi, 83 ff. cat. no. Y(a), pls. XLVIII-XLIX.

¹⁴⁵ The older suggestion, however, that the smaller shields from the Idaean Cave in Crete are actually cymbals performed during the orgiastic cult (Thiersch 1913; Kunze 1931, 48) is no longer acceptable.

morphological analysis.¹⁴⁶ Furthermore, the Mouliana bosses would be the sole specimen of the large plate-cymbal variety found in the Bronze Age Eastern Mediterranean. Representations of larger cymbals between 0.15-0.20 in diameter are depicted on relief terracotta stelae from Ur (ca. 2050 BC; *MiB-Mesopotamien* 73 fig. 56), on an ivory statuette from LBA Ugarit (Caubet 1987, 743, fig.7) and are also known from Archaic Cyprus (see following chapter 4.1.2.2). The iconographic evidence suggests that the large type was also known and played in the Levant during the 2nd millennium and in Cyprus some centuries later, in the 1st millennium, although such large cymbals have not yet come to light outside Egypt of the Late and Roman period.¹⁴⁷

A final point should be made with regard to the military context of the burials, which has been considered the main objection to the identification of the Mouliana bosses as musical instruments. Cymbal playing is generally associated with religious performances and the cults of Dionysos, Kybele, Demeter and other deities, but their bright and loud sound also made them appropriate as instruments of war (*Survey* 11; Hickmann 1949c, 500). Cymbal playing is part of the musical accompaniment for military processions comprising fully armed soldiers with shields and spears, lightly armed archers and cavalry, such as those depicted on two Neo-Assyrian reliefs from the palace at Nineveh, now in the Louvre and in Berlin (*MiB-Mesopotamien* 120, 134, figs. 140, 149, 150). Military music of the Assyrian court during the 8th and early 7th centuries BC combined tambourines and cymbals with string instruments, but the association of cymbals and percussion with combat goes back further into the Old Babylonian period, and a terracotta relief from Larsa depicts combat-dancers being accompanied by the sounds of cymbals and kettle-drum (*BM Inv. No.* 91906; Rimmer 1969, pl. Vb; see below, chapter 4.5.1, Fig. 4.59a). When discussing cymbal players on the bastions of a citadel depicted on a pyxis from Nimrud, Spycket suggested that a Levantine custom might involve cymbal or tambourine playing during battle as signalling device or as a means to uplift the spirits in the course of the battle (Spycket 1972, 208, fig. 59). It is therefore not

¹⁴⁶ Xanthoudides remarked on the importance of the Mouliana “cymbals” for indicating religious influences from the East and for tracing the introduction of Asiatic orgiastic cults in the Aegean towards the end of the Mycenaean period (Xanthoudides 1904, 47-8), as is inferred from the association of cymbals with Kybele, Dionysos and Attis in later periods. Otherwise, archaeological and pictorial evidence for cymbals in Greece does not predate the Archaic period, when the instrument appears associated with the worship of Apollo and Artemis (see below, chapter 4.1.2.2). For the Levantine origin of cymbals as well as that of the Dionysian cult and imagery see Carpenter 1997.

¹⁴⁷ Some scholars have suggested that the reference to different sound qualities of the cymbals in Psalm 150.5, namely light/clear and loud/harsh/noisy sounds, actually refers to the two varieties of small and large cymbals respectively (Stainer 1914, 168-9; Braun 2002, 109); contra Sachs (*History* 122), who thought that what it implied here is the difference in holding the cymbals horizontally (and thus producing a softer sound) versus holding them vertically.

unlikely that cymbals may be compatible with the warrior status of the deceased buried in Mouliana, Amathus and Kaloriziki. In this stage, however, these speculations should remain tentative and the identification of these bronze bosses with cymbals is far from definite.

4.1.2.2 Iconography and motifs: Iron Age

Cymbals are depicted in Mesopotamia and Egypt during the 2nd millennium BC, but less often than strings, winds, tambourines and clappers. There is no evidence of cymbal playing representations so far from the Aegean and Cyprus in the Bronze Age, although recently it has been proposed that the concentric circles shown on a Sub-Minoan/EPG krater from Thronos-Kephala in Crete, which also depicts warriors and a lyre floating in the field, might actually represent cymbals (D'Agata & Karamaliki 2002, 352, fig. 10).

The rendering of the hands in the middle of a disc or discs is consistent with Near Eastern cymbal playing iconography from the Bronze and the Iron Age. The earliest Mesopotamian cymbal imagery is from a relief stele from Ur (ca. 2050 BC) and shows two superimposed discs clashed horizontally at face level (Fig. 4.18a). It is estimated that their diameter lies between 0.14-0.16 (estimated in proportion to the size of hands and face of the represented musician). From the horizontal playing action and the substantial size of the instrument it can be conjectured that they are not rimless cup-cymbals, which are always shown played vertically, but must belong either to the type of large plate-cymbals or of bowl-shaped cymbals with rim. Even larger cymbals are held and played horizontally by an ivory female figurine from Ugarit in Syria, dated between the 14th -12th centuries BC (Caubet 1987, 743 n.34; 1996, 10, 27 no. 13). The three dimensional representation shows both hands placed near the centre on each side of a round disc, which is estimated to be slightly over 0.20 in diameter (proportionately to the hands and head of the musician) (Fig. 4.18b). The symmetrical position of the hands alludes to cymbal playing rather than tambourine playing (Caubet 1987), as a tambourine would need to be supported from below with one hand and played with the other and therefore the hands would be presented asymmetrically and at different levels (see representations in chapter 5).¹⁴⁸

¹⁴⁸ Similar Babylonian and Hittite representations of cymbal playing are seen on a relief plaque from Larsa (see chapter 4.5.1 Fig. 4.59a) and on the Inandik Vase (1500-100 BC; Bienkowski & Millard 2000, 203, figure in text) respectively.



Fig. 4.18: a) Fragment of a relief terracotta stele from Ur. Sumerian, ca. 2050 BC. Toronto, Royal Ontario Museum Inv. No. 950.7.3 (after *MiB-Mesopotamien* fig. 56). b) Ivory female cymbal player. From a tomb at Ras Shamra, Ugarit (RS. 24400). Ht.: 0.054 (after Caubet 1987, fig. 7)

In other cases cymbals are represented as two superimposed but not entirely overlapping discs; on the Neo-Assyrian relief from the Palace at Nineveh the pair of large plate-cymbals (estimated to be approximately between 0.13-0.15) is struck horizontally, and each cymbal partially covers the concavity and flange of the other (Fig. 4.19a).¹⁴⁹ In a much earlier Egyptian representation dated to the 15th century BC (XVII Dynasty) that shows a similar action in frontal view, the opposed palms enclose two clearly depicted bowl-shaped objects that do not exceed the length of the palm and are clashed like cymbals (Hickmann 1949c, 472-3, fig. 12). The same detailed rendering of both cymbals characterises the figurine which is part of the decoration of a terracotta stand from the Philistine site Ashdod, dated to the late 11th-early 10th century BC (Fig. 4.19b).¹⁵⁰ Here the cymbals have a rounded shape on the outer surface and they evidently belong to the small variety less than 0.11 in diameter (like the majority of cymbals presented in Appendix II). The narrow rim of the cymbal is visible on the periphery of the boss, the dome is round-shaped and the inner surface flat. Again, the right hand can be clearly seen holding the cymbal in the middle of the boss.

¹⁴⁹ Striking the flanges of the cymbals would dampen the sound, whereas when they are beaten off centre, partially covering the concavity, the sound is brighter and more resonant (Hickmann 1949c). The same practice is observed on a 14th century BC Hittite silver vessel from Boston, where large plate-cymbals about 0.20 in diameter are played and one is partially covering the other (Güterbock & Kendall 1995, 52-3, fig. 3.7).

¹⁵⁰ Ashdod is one of the Philistine Pentapolis cities where an amalgam of Canaanite/Egyptian, Mycenaean and Assyrian elements can be traced (Braun 1994, 142). The stand was found next to what seems to be a cult place and was probably used for libations or offerings. It consists of a deep bowl placed on a cylindrical foot which is decorated with the figures of five musicians playing two double *auloi*, a lyre, a tambourine and cymbals. A file of three animals runs above the musicians (Dothan 1970; Braun 2002, 165 ff.). It has been proposed that the iconography of the stand presents features typical of the Kybele cult (Braun 1994, 143).

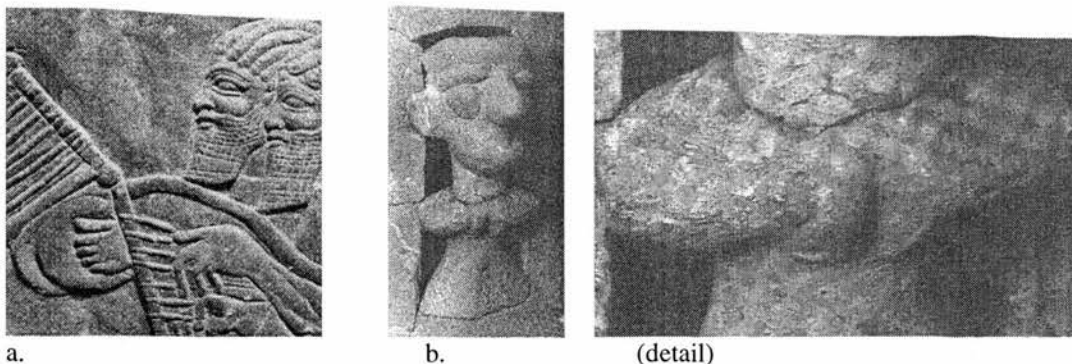


Fig. 4.19: a) Cymbal player on an alabaster relief from Nineveh Palace. 668-627 BC (after *MiB-Mesopotamien* 135, fig.150). b) Cymbal player on a terracotta stand from Ashdod, Philistia (Israel/Palestine). 1050-950 BC (after Braun 2002, 171, pl. IV32.e).

These examples clarify that the antithetic and symmetrical position of the hands, both on the same level and on each side of a disc, indicate cymbal playing. On these grounds, a few Cypriote terracotta figurines of the Cypro-Achaic period previously described by scholars as tambourine players can now be identified as cymbal players, as they present the same characteristic position of the hands placed antithetically on each side of a disc.¹⁵¹ They can be divided into the following iconographic types:

Type A) Small/medium cymbals (diameter 0.06-0.12) (Fig. 4.20):

- (C) 106) **Male cymbal player with mobile legs.** Famagusta, Hadjiprodromou Collection, no. 1342. From Cyprus, unknown context.
- 107) **Bell-shaped male cymbal player with mobile legs.** *Copenhagen* Inv. No. 6542. From Cyprus, unknown context.
- 108) **Cymbal player.** *CM* Inv. No. B234a. From Cyprus, unknown context.
- 109) **Cymbal player.** Karlsruhe, Badisches Landesmuseum Inv. No. B2426. From Idalion, Cyprus.
- 109a) **Cymbal player.** Karlsruhe Badisches Landesmuseum Inv. No. B2432. From Idalion, Cyprus.
- 110) **Cymbal player.** *CM* Inv. No. B179. From Cyprus, unknown context.
- 111) **Cymbal player.** *CM* Inv. No. B217. From Cyprus, unknown context.
- 123) **Female cymbal player.** Ontario, Royal Museums Inv. No.925.39.9. From Cyprus, unknown context.

¹⁵¹ The view of Meerschaert 1991 that cymbals are not represented in Cyprus should therefore be dismissed.

The cymbals are represented as a single flat disc between the hands, apparently indicating the moment that the instruments are clashed against each other. In general the size of the clay disc between the hands does not much exceed the size of the palm, indicating that the instrument belongs to the small/medium variety. Cat. 106 shows an exceptionally small disc, which might suggest a diameter around 0.06-0.08, that would probably have a broad dome and upturned rim. Similarly, Cat. 109a and 111 show discs of about the size of the palm. Cat. 111 differs from the other terracottas in placing the arms in front of the lower body rather than at face/chest level, the variation possibly reflecting a momentary dance movement. This rendering is probably a simplified clay version of the more detailed depictions in bronze, such as the small cymbals played horizontally by the 6th century BC bronze female mirror-handle figure from Cyprus that we have already mentioned (Fig. 4.16).

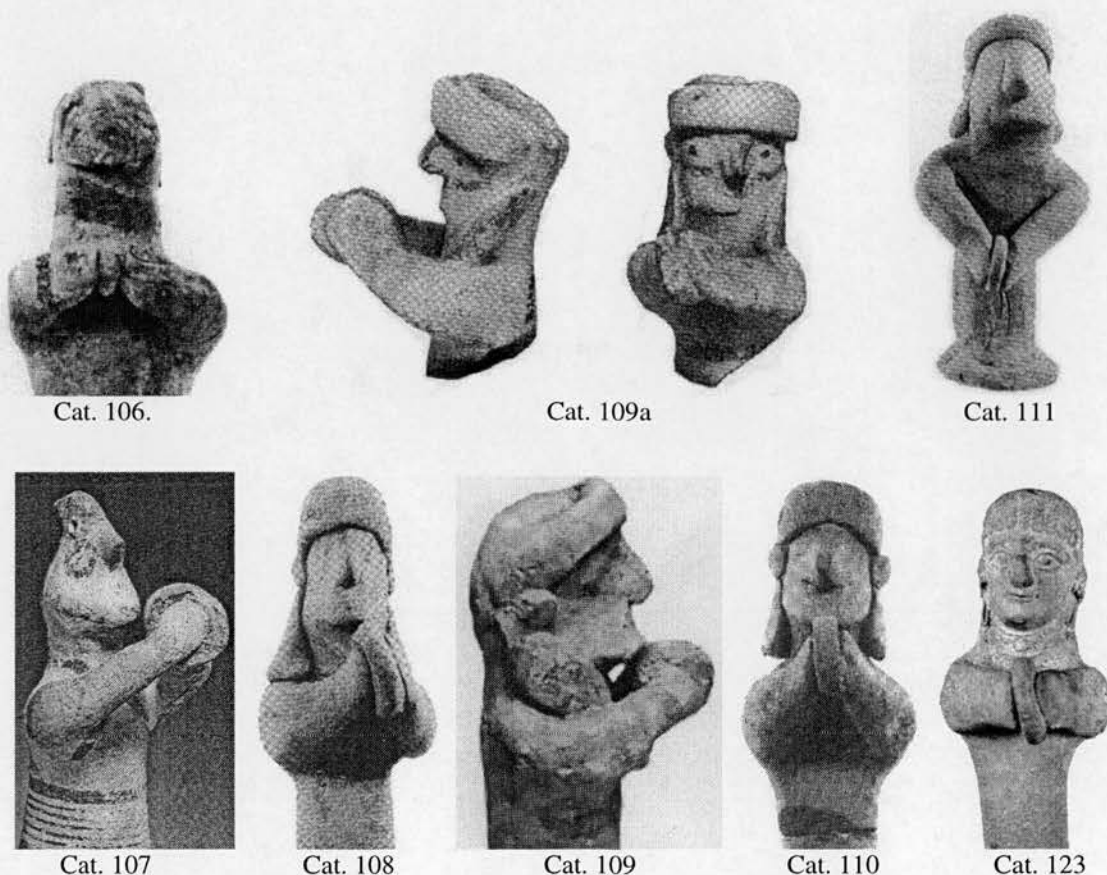


Fig. 4.20: EIA terracotta cymbal players from Cyprus. Small/medium cymbals. Cat. 106-111, 123

Cat. 107, 108, 109, 110 and 123 hold more substantial, slightly thicker and wider discs. Two more figurines from Idalion, now in the Louvre (MNB 1119 and AM 3557), hold a small disc with both hands placed symmetrically at the centre and are identical to Cat. 108, 109 and 110. According to Caubet, this stylistic coroplastic type originated in Amathus (from where it was imported at Idalion) and is dated to the 8th-6th centuries BC (Caubet 1992, 144, Group 3, fig.

2e; 1998, 113 nos. 129 and 130).¹⁵² The musical character of Cat. 106 and 107 is complemented by the fact that they have tinkling mobile legs.¹⁵³ Cat.123 is stylistically connected with the mould-made figures from the Arsos and Lapithos workshops, which usually produced tambourine players (see chapter 5). It is not easy to decide whether the slightly wider disc on these examples is coincidental or whether the coroplast aims to represent cymbals of the small/medium variety with diameter in the range of 0.10-0.12. In any case, the modelling of the instruments is not detailed and there is no particular rendering of the dome, the rim or the flange. In this respect, the Cypriote terracottas follow the model of the statuette from Ugarit with summary and simplified rendering of the instrument, rather than the more explicit representation of the cymbals on the terracotta from Ashdod.

Type B) Large plate-cymbals (diameter up to 0.20) (Fig. 4.21):

(C) **112) Cymbal player.** *NyCG* Inv. No. 3611. From Cyprus, unknown context.

113) Female cymbal player. *CM* Inv. No. C394. From Cyprus, unknown context.

In analogy with the ivory statuette from Ugarit, and the fact that cymbals were held by handles placed in the centre of the boss, the scholarly interpretation of the Cypriote terracotta figurines Cat. 112 and 113 as tambourine players could be reassessed. These figurines hold large and thin discs at or near the centre and it is therefore proposed that these also represent cymbal players with large plate-cymbals, as the discs in these cases exceed considerably the size of the palm and their diameter could be estimated to be around 0.18-0.20. Cat. 113 is comparable to the statuette from Ugarit in keeping the large disc close to the body and it also employs extra support with a piece of clay underneath. Cat. 112 on the other hand is more successful in holding the disc further away and raising it to the level of the face as occurs in the rest of the Cypriote terracottas and the majority of Near Eastern cymbal playing representations. However, in Cat. 112 the hand is placed slightly off centre, towards the lower circumference, a detail that might equally allude to tambourine playing (see chapter 5). Further difficulty with the cymbal playing interpretation arises from the facts that the

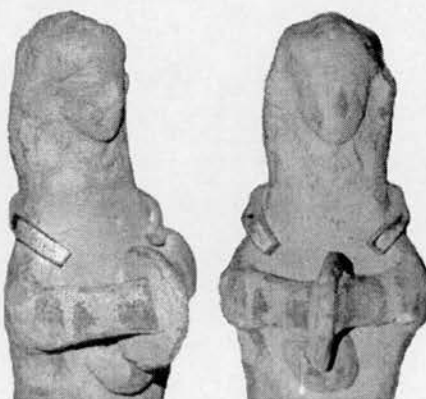
¹⁵² A third similar figurine in the Cyprus Museum (B195) holds a very small disc, partly broken off, and not visible between the palms in the published illustration (*Coroplastica iv*, Cat. no. 1(vii)11, pl. XX:4). Since none of these figures comes from a known archaeological context, it is not certain whether they were designated as offerings to any of the known sanctuaries of Athena, Aphrodite or Apollo at Idalion, or if they served a different function (Caubet 1992, 136-9). Five identical terracottas without provenance are catalogued by Karageorghis, now in the Museums of Nicosia (Inv. Nos. B200, B203, B14, B195) and Boston (Inv. No. 72.150) (*Coroplastica iv*, 41-2, cat. nos. I(vii)4, 5, 7, 8, 11, pls. XIX, XX).

¹⁵³ See discussion on this class of artefacts in chapter 4.2.2.3.

surviving instruments from Greece and Cyprus are smaller in diameter and that the identification of large plate-cymbals in the Late Bronze and Early Iron Age is problematic (see previous discussion on bosses from Mouliana). Therefore, given the impressive width of the clay discs, the possibility that these figures are playing tambourines cannot be dismissed altogether. Nevertheless, this interpretation would mean that the coroplast had completely neglected to show the details essential for the successful identification of instrument, such as the playing technique, an omission that is not generally observed in the coroplastic art of Cyprus. If the criterion of the playing technique is an important methodological tool in musical iconographic analysis (as has been argued in chapters 2.2.3 and 2.4.2), then we have to accept that these Cypriote terracottas provide pictorial evidence for the performance of large plate-cymbals in Cyprus during the Cypro-Archaic I/II period, matching the analogous evidence from Neo-Assyrian reliefs of the same period, as well as the Bronze Age Sumerian and Ugaritic representations.¹⁵⁴



Cat. 112



Cat. 113

Fig. 4.21: EIA terracotta cymbal players from Cyprus. Large plate-cymbals. Cat. 112, 113.

Cat. 113 is unprovenanced, but stylistically it may be assigned to the Larnaca-Kamilarga workshop that was active at the end of 7th- beginning of 6th century BC (Caubet 1991, 132). The coroplastic type of a female figure holding a large and thin disc with the palms placed antithetically in the centre becomes very popular in the Cypro-Archaic II period, with the mass production of terracottas with hollow body, handmade hands (snowman technique) and mould-made head from the Lapithos workshop (Fig. 4.22a). These are associated with the cult of a female fertility deity, a Great Goddess type, as it can be surmised from the offering types

¹⁵⁴ This, of course, is not to say that the Cypriote votive terracottas are directly linked with the Bronze Age antecedents from Sumeria and the Levant.

at the sanctuary (Yon & Caubet 1988).¹⁵⁵ The overall modelling of the mould-made Lapithos figurines is closely connected with the mould made terracottas from the Larnaca-Kamilarga workshop, which usually represent tambourine players holding a disc from below in front of their chest and beating it with the right hand in the middle or near its lower circumference (apart from our Cat.113).¹⁵⁶ Only five mould-made examples of the Lapithos workshop catalogued by Karageorghis, however, have this arrangement of the arms (Fig. 4.22b),¹⁵⁷ whereas the majority holds the disc in the centre in the manner of cymbals.¹⁵⁸ This difference has been noted and, since the symmetric arm position does not relate to tambourine playing, some scholars have interpreted the Lapithos figurines with mould-made heads as cymbal players (Yon & Caubet 1988, 15), whereas others proposed that in these instances a tambourine is simply held rather than played (performance being indicated by the asymmetric arm position; *Coroplastic vA*, 73). The long association of the symmetric arm arrangement with cymbal playing from the Bronze Age onwards, however, in combination with the fact that both attitudes are reproduced by the Lapithos workshop, strengthens our suggestion that the coroplast would have made a distinction between tambourine and cymbal playing techniques. In this light, the majority of the Lapithos figurines under discussion would represent cymbal players. The contrast with the production of the Larnaca-Kamilarga workshop is remarkable, since only a couple of these figurines display the symmetric arm arrangement and the majority reproduces the typical asymmetric pose of tambourine playing.¹⁵⁹ Given the rough workmanship and mass production of the figurines from both

¹⁵⁵ Four examples of this type in Yon & Caubet 1988, 10-11, 15 nos. 32-35 (Atelier 4, Neo-Cypriote style), fig. 6, pl. IV. Karageorghis has catalogued 34 examples and acknowledges the existence of at least another 130 in museums and private collections, all of unknown archaeological context (*Coroplastic vA*, 73 ff., cat. nos. II(xv)37-71, pls. L-LV); see also Morris 1985, pl. 205a-f.

¹⁵⁶ For a tambourine player of the Larnaca-Kamilarga workshop see our Cat. 125 and numerous examples in *Coroplastic vA*, 69-71, cat. nos. I(xv)1-24, pls. XLVI-XLVIII (with the exception of nos. 15, 20 and 24 with symmetrical arrangement of the arms, no. 20 being our Cat.113).

¹⁵⁷ For the hollow Lapithos tambourine players with mould made head see *Coroplastic cA*, 74-5, cat. nos. I(xv)37-40, 57, pl. L.

¹⁵⁸ This is in contrast to the handmade variety of terracottas with solid bodies from Lapithos, also dated to the CA:II period, that can be securely identified as tambourine players and on which the clay disc is always held from below and beaten with the right hand.(see *Coroplastic vA* 42, cat. nos. I(xi)h:60-66, pl. XXVII:5-11; Yon & Caubet 1988).

¹⁵⁹ The geographical distribution of the two workshops, with Larnaca turning to the south and exposed to influences from Israel/Palestine and Lapithos looking northeast and oriented towards North Syria, may be significant for this differentiation (see also Connelly 1991, 94 ff.). It is interesting that the terracottas with small/medium cymbals are concentrated on the southern part of the island, with Phoenician population in Kition, and to some extent Amathus and Tamassos, possibly introducing a few semitic influences into the local style of production (Vandenabeele 1986 and 1989, 269; Bisi 1986 and 1991, 89). The large cymbal representations are mainly found with the northern Lapithos workshop and could possibly be inspired by the North Syrian-Late Hittite artistic schools of the 9th-7th centuries BC. The latter connection has not yet been studied adequately (Bisi 1991, 88).

workshops, the position of the arms is the only means that the coroplast had at his disposal to differentiate between the two instruments, and he adhered to this distinction.¹⁶⁰

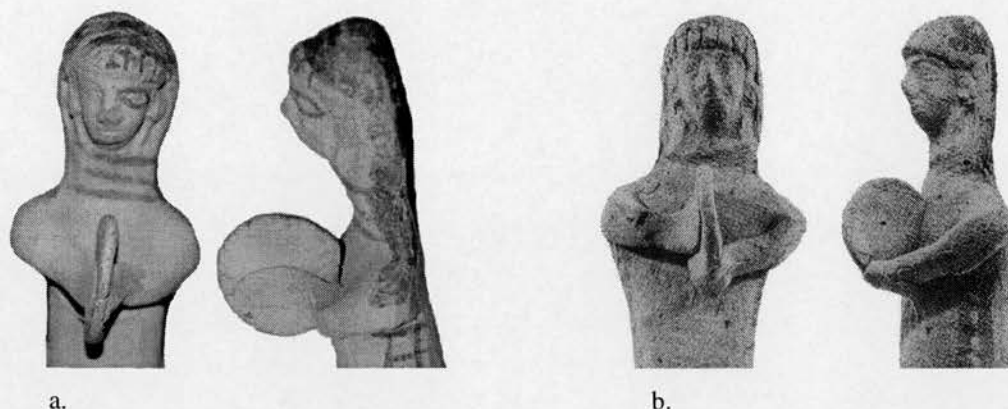


Fig. 4.22: Cyprus, Lapithos workshop. CA:II. a) Female terracotta cymbal player. Ht.: 0.166. CM Inv. No. B164b (photo by author). b) Female terracotta tambourine player. Ht.: 0.16. CM Inv. No. B107a (after *Coroplastic vA*, cat. no. II(xv):57, pl. LIII:3).

Although cymbals are attested in Cyprus since the 12th century BC (CY.6), representations of the instrument do not appear prior to the Cypriote terracottas of the CA:I/II period playing small/medium cymbals. The examples belonging to the Amathus workshop in particular are dated to the 8th-6th centuries BC (Karageorghis 1987, 1; Caubet 1992, 131). They are of local Cypriote manufacture and, although they may well have been inspired by the Levantine (Philistine-Canaanite), North Syrian and Assyrian iconographic models such as those that we have already discussed, they do not have exact parallels in the coroplastic arts of those areas, where in fact the cymbal playing representations in the early 1st millennium are limited anyway. The terracotta from Ashdod (Fig. 4.19b) is the only comparable example in terms of the overall modelling of the figures¹⁶¹ and in showing the performance of small/medium cymbals in this particular media, but the Cypriote terracottas have their own distinctive style

¹⁶⁰ In three dimensional representations one would expect the tambourines to be represented with a marked frame and with thicker discs than cymbals (see chapter 5). The thickness and the size of the clay disc, however, are subject to the skilfulness of the coroplast; as a result, they vary from specimen to specimen in both the Larnaca-Kamilarga and the Lapithos workshops and therefore cannot be diagnostic of the instrument. In mass-produced artefacts, like these figurines where detail is minimal, it is important to retain the most characteristic features that embody the symbolism of the image. For this reason, the immediate visual impact of the two different playing techniques would be a more effective tool to enable the viewer to distinguish between tambourines and cymbals, than the specifications of the instruments themselves.

¹⁶¹ Note the similar large heads on a moderate solid body, the face with prominent nose and pellet ears, with the difference that the Amathusian workshop also gives them a turban-like headdress and does not always render the eyes plastically.

in rendering the instrument and its performance.¹⁶² Stylistically the Cypro-Archaic terracotta cymbal players are completely Cypriote in character, but it is possible that the launch of their production was associated with the arrival of Phoenician population at the south part of the island from the 9th century BC onwards.¹⁶³ As none of the Cypriote cymbal players discussed comes from a known archaeological context, their association with the local sanctuaries of the respective workshops can only be surmised. The deity venerated in the sanctuaries of Lapithos and Amathus has been identified as Aphrodite/Great Mother, with elements of the Tyrian “*dea gravidas*” in Amathus (Hermay 1988.2 and 2000a; Yon & Caubet 1988).

The Cypriote cymbal players are slightly earlier than the first two and three dimensional cymbal representations in Greece that appear in the second quarter of the 6th century BC. Two bronze representations of female cymbal players come from Sparta, namely a free standing female statuette from the Sanctuary of Artemis Orthia (*Aign* 250, V/57, fig. 137; Lamb 1926-7, 101, pl. XII:16; Dawkins 1929, 202, pl. XC:a, Rolley 1967, no. 59; *MiB-Griechenland* 61, fig. 32) and a mirror handle from the Sanctuary of Apollo Amyklaios (Tsountas 1892, 10-11, pl. 1). They both have small/medium plate-cymbals played with a horizontal hand movement. The Orthia bronze (Fig. 4.23a) presents the cymbals at the moment of impact, and they are thus rendered as a compact disc with a shallow transverse groove to distinguish the two instruments; a depression around the palm indicates the dome of the instrument. Both hands are symmetrically placed in the centre of the disc, as in the Cypriote terracottas. The Amyklaion bronze (Fig. 4.23b) has the same pose but attempts to represent the two instruments separately at the moment immediately before the moment of impact. It shows smaller cymbals, like those held by the similar bronze female mirror-handle from Cyprus already discussed (Fig. 4.16).¹⁶⁴ This cymbal rendering from Cyprus and Amyklaion recalls

¹⁶² The Cypriote figures hold simple flat discs (without details) away from the body, in contrast with the boss-like instrument rendered almost in relief in the example from Ashdod.

¹⁶³ Vandenabeele argued that the Phoenician influence on Cypriote terracotta production was insignificant, with the possible exception in areas with strong Phoenician presence and political power such as Kition and possibly Amathus and Tamassos (Vandenabeele 1989; Markoe 2000, 159; Caubet & Yon 1989). Braun on the other hand stressed the reliance of Cypriote terracotta musicians on the pre-Phoenician Philistine-Canaanite tradition of the Ashdod stand model (Braun 1994, 142). The hairstyle of the Amathusian figurines, a simplified version of the Egyptianising wig or hairstyle rendered in a distinctive Cypriote manner, is a stylistic feature that might point to Phoenician rather than direct Egyptian influence, as it is also found in the local Phoenician terracotta production; see Figs. 5.12d, e in chapter 5 and compare with the coiffure of some terracottas from the Kition workshop (Yon & Caubet 1989, 31 ff., Group 2, figs. 6, 9). According to Markoe, the Phoenician production shows “little awareness of foreign stylistic conventions” (Markoe 2000, 159), although certain types, such as masks, were influenced by earlier Cypriote models. See also discussion in chapter 5.3.2

¹⁶⁴ The Spartan and the Cypriote cymbal players are both naked, wearing a telamon and jewellery (bracelets, necklace) and bearing an anthemion on the top of the head. The Cypriote figure stands on a frog, but the lower legs of the figure from Amyklaion are missing. The bronze from Cyprus has been

the modelling observed on the Ashdod terracotta figurine (Fig. 4.19b) four centuries earlier; it also provides the model for the later cymbal imagery on vase painting of the Classical period where small cymbals are shown far apart or before the moment of the impact (see examples in Paquette 1984, 212, P12-14).

Sparta may have also produced lead votive plaques of cymbal players from the sanctuaries of Artemis Orthia and Menelaion during the 6th century BC (Dawkins 1929, 276; Wace et al 1908-9, 136-7, fig. 9:24; *Aign* 249, V/56, fig.136). Female figures in profile are shown holding disc-shaped objects in front of the lower body (Fig. 4.23c), but the unclear rendering of the hand position as well as the size of the object held are not conclusive and it may well be that a tambourine or a non-musical round object like a phiale are represented instead (*Aign* 249, n.2).

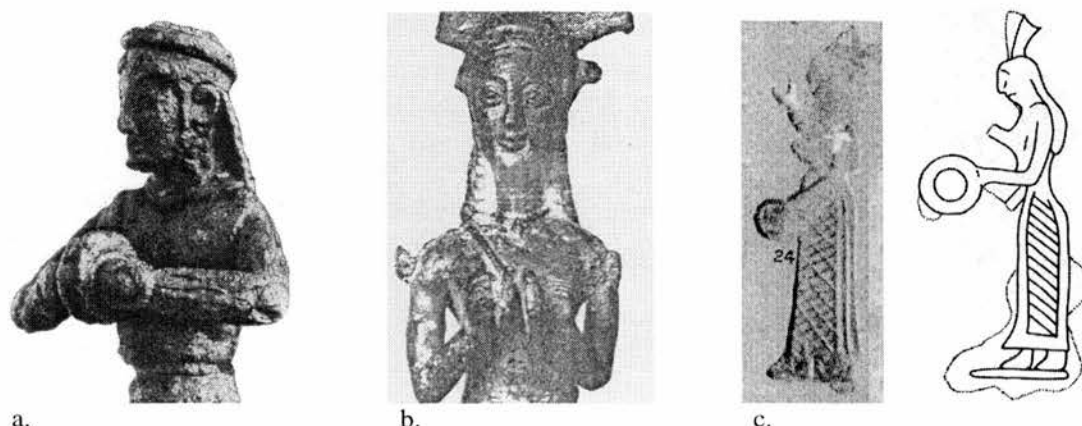


Fig. 4.23: Cymbal players from Sparta. a) Bronze statuette from Artemis Orthia Sanctuary. Ca. 570/60 BC. NMA Inv. No. 15890 (after *MiB-Griechenland* 61, fig. 32). b) Bronze mirror handle from Amyklaion. Mid-6th century BC (after Tsountas 1892, pl. 1). c) Lead plaques from Menelaion (left) and Artemis Orthia (right). Lead III-IV, 600-500 BC (after Wace et al 1908-9, 137, fig. 9:24 and *Aign* 249, fig. 136 respectively).

Among the earliest iconographic evidence for cymbals in Greece is the representation on the François Vase (ca. 570 BC) of funnel-shaped cup-cymbals played with a vertical movement of the hands, that we have already mentioned (Fig. 4.14f). This is the only representation of the funnel-shaped type in Greece (all the other examples showing plate-cymbals played horizontally instead). The cymbals are played by a nymph who accompanies the return of

considered to be of Phoenician workmanship (*Behn* 58), but most scholars believe it is a Greek work, most probably Laconian (Rolley 1967 no. 60; Tsountas 1892, 11; *Aign* 249 n.3; Karageorghis 2000, no. 311). For a discussion on the connections between Cyprus and Laconia in the EIA with regard iconography and other aspects, see Voyatzis 1985.

Hephaistos to Olympus, being led by Dionysos and followed by Satyrs.¹⁶⁵ The cymbals on the François Vase are comparable with those depicted on a relief with military procession from the Palace at Nineveh early in the 7th century BC,¹⁶⁶ as well as with surviving cymbals from Horoztepe and Alaca Hüyük (with flat and slightly convex flange; Muscarella 1988, 402 nos. 529a, b). The evidence from the François Vase leaves no doubt for the familiarity of the Greeks with the Anatolian, Assyrian and Neo-Assyrian musical practices. Carpenter has argued that the painter of the François Vase relied on earlier iconographic models for this scene (Carpenter 1997, 43) and the type of cymbals as well as the depiction of bells or bell-shaped ornaments on the harness of the donkey carrying Hephaistos might suggest inspiration from the imperial Neo-Assyrian iconography for these elements of the scene.¹⁶⁷ This representation alone is not conclusive for the use of funnel-shaped cymbals in the Aegean, as the painter may have deliberately chosen to depict this particular type in order to emphasise the deity's return journey from the East. It is however the earliest iconographic evidence for cymbal playing in connection with the cult of Dionysos, whereas the other 6th century representations associate cymbals with Artemis and Apollo.¹⁶⁸ The eastern model for the cymbals on the François Vase and the Cypriote forerunners for the bronze cymbal players from Sparta exemplify the introduction of the instrument into the Aegean from the East, with Cyprus and Laconia probably playing an important mediatory role.

¹⁶⁵ Legend has it that Hephaistos was thrown down from Olympus by Hera or Zeus (*Il.* 6.132-7, 18.404-5) and landed at Lemnos where he stayed and perfected the art of bronze-working, until Dionysos brought him back to Olympus.

¹⁶⁶ See Fig. 4.14e in previous chapter 4.1.2.1 for the cymbals and *MiB-Mesopotamien* 121, fig. 141 for the full scene.

¹⁶⁷ See discussion on bell iconography below (chapter 4.2.2) and Carpenter 1997, pl. 5A for the potential bells on the harness of Hephaistos's donkey on the François Vase.

¹⁶⁸ Literary and later iconographic evidence relate cymbals with the cults of Kybele, Demeter, Mother of Gods and Attis. For a Classical dinos from Bologna (Inv. No. 283) depicting Demeter playing the cymbals and holding them horizontally in the manner of the François Vase see Carpenter 1997, pl. 40B. For cymbals in association with Attis and Kybele (hung from a tree but not played) see *LIMC* III.2, 42, Attis 248, 397. Archaeological evidence reveals a broad range of associations, as the cymbals from Argos (CY.1) and Perachora (CY.14) were dedicated to Hera and those from Lindos (CY.15) and Athens (CY.3) to Athena.

4.2 Idiophones struck directly – percussion

4.2.0 Classification and terminology

Percussion idiophones consist of a resonant body that is made to vibrate when struck with a non-resonant object such as a beater/hammer (soft or hard) or a clapper. In most cases the sounding body is made of metal for a clear and reverberant sound, but materials such as wood (slit drums for instance), stone (lithophones), gourd and clay are also suitable.¹⁶⁹ They are classified according to the shape of their sounding body that can have the following forms:

(a) Vessel (bell, gong, pot, gourd). A hollow body constitutes the main common feature, whereas the vibration modes and the acoustic effect differ according to the morphology and material of the instrument. In the case of the bell, it is the area near the rim (soundbow) and consecutively the overall conical body that vibrates, with the closed vertex being a node (non vibrating part). Gongs on the other hand vibrate at the central area (flat, slightly raised or domed) and the extended circular disc-shaped surface, but their rim (deep or shallow, bent inwards like a frame) does not vibrate. Pots and gourds are drummed upon with the hands or beaters, or the mouth of the pot is alternately open and covered thus causing the air inside to vibrate (*Survey* 44-5, 54; Fletcher & Rossing 1998, 656, 660, 676).¹⁷⁰

(b) Disk. Associated with gongs, percussion disks are rimless and flat circular surfaces made of bronze that vibrate freely when beaten and produce a tinkling sound; they are found in East Asia and India. Bronze discs with a central hole for suspension were used as signal instruments in Rome, known as *discus* (*DarSag* s.v. “Tintinnabulum”, 341 fig.6993). Thin discs on metal handles, with rings or jingles at the rim, are found in Etruria and Pompei (*Survey* 18-9; *History* 149, 123).

(c) Beam, stick/plaque (xylophone, triangle, metallophone and others). Struck wooden boards as well as wooden and metal sticks are found in many parts of the world (*Survey* 20 ff.; Picken 1975, 25-6). In the Greek Orthodox Church a wooden or metal beam known as *semanterion* hit with a wooden mallet is used as signal instrument (Anoyanakis 1979, 95 ff).

(d) Tube. Tubes made of wood (slit drums), bamboo or metal (chimes) can be stamped or beaten.

¹⁶⁹ For various types of percussion idiophones and their playing techniques worldwide, see *Survey* 16 ff. and the relevant entries in *NGDMI* and ²*MGG*. For prehistoric lithophones in Europe see essays in Hickmann & Hughes 1988.

¹⁷⁰ Tunes played on clay pots hit with a wooden stick are mentioned in *Suda* Lexicon s.v. “Διοκλῆς”, “τοῦτον δὲ φασιν εὐρεῖν καὶ τὴν ἐν τοῖς ὀξυβάφοις ἀρμονίαν ἐν ὀστρακίνοις ἀγγείοις, ἅπερ ἔκρουεν ἐν ξυλιφίῳ”; Michaelidis 1989, 98; *West* 128.

So far only percussion disks and vessels are attested in ancient Greek literature. Four bronze disks (χαλκοῦς δίσκους) of similar diameter but different thickness (ratios 3:1, 1:2, 2:1) and pitch were made by the Pythagorean Hippias of Metapontum at around 500 BC and Glaucus of Rhegium (South Italy) is known to have performed musically on such tuned discs (Aristoxenus *Fragmenta* 90; West 128, 234 n. 38).

Bells are mentioned from the Classical period onwards, denoted by the word κῶδων (*kōdōn*). The earliest reference comes from a verse of Aeschylus, who mentions bronze bells being attached on the shield of hero Tydeus and emit a fearsome clang.¹⁷¹ In another verse by Euripides, many bells are worn by Rhesos' horse, fitted on the harness that is also decorated with a gorgoneion and spreads fear.¹⁷² Accordingly, the verb κωδωνίζειν (*kōdōnizein*) describes the means to test bravery of men and horses and their endurance to the effect of the ringing sound; bells were used by the guards of the city in their patrols as means of signalling and communication (Suda Lexicon, s.v. “κωδωνοφορῶν”). The word *kōdōn* is also used to describe the bell of a trumpet and therefore it denoted the wind instrument as *pars pro toto*.¹⁷³ Hesychius gives the words κύμβαλον (*kymbalon*, “cymbal”) and ἡχεῖον (*echeion*, “resonating body”) as synonyms for *kōdōn* (“bell”), probably due to their common characteristics, namely the vessel body made of bronze and thus producing high pitch tinkling and lasting metallic sound.

Ἡχεῖον (*echeion*) and χαλκεῖον (*chalkeion*) are terms alluding to bronze percussion vessels. The *chalkeion* from the Sanctuary at Dodone (Δωδωναῖον χαλκεῖον) is identified as a sort of bronze tripod or cauldron. A number of tripods encircled the sanctuary and were placed in such great proximity that they overlapped (ψάυειν ἀλλήλοις) and thus all resonated consecutively when one of them was struck (softly or hard) with a beater, producing

¹⁷¹ Aeschylus *Seven Against Thebes* 385-6, “ὑπ’ ἀσπίδος δὲ τῷ χαλκήλατοι κλάζουσι κῶδωνες φόβον”. A fragment by Sophocles (860) describes the shields of Trojan wrestlers as having bells (“κωδωνοκρότω”).

¹⁷² Euripides *Rhesus* 306-8, “Γοργῶν δ’ ὡς ἐπ’ αἰγίδος θεᾶς χαλκῇ μετώποις ἵππικοῖσι πρόσδετος πολλοῖσι σὺν κῶδωσιν ἐκτύπει φόβον”. Bells on the cheek-pieces of horses are also mentioned by Aristophanes *Frogs* 962, “κωδωνοφαλαροπῶλους”, and in Suda.

¹⁷³ Suda and Hesychius, s.v. “Κῶδων”. See also Scholia in Iliadem 18.219b1.8 ff. describing the bells of various trumpets; similarly in Athenaeus *Deipnosophistai* IV.84.38. Compare the comment by Pollux about horses making trumpet sounds, and his explanation of Aeschylus’ term αὐλωτοὶ φῖμοι for the horse bands as having bells attached on them (*Onomastikon* 10.56; Aeschylus fr. 465).

a long lasting reverberating sound.¹⁷⁴ Another version of the instrument comprised just one cauldron being struck by a whip or chain. In one case, the statue of a youth was holding a whip (μάστιγξ) bearing knucklebones over the cauldron, the wind caused the whip to strike the cauldron and thus produce sound (Cook 1902, fig. in p. 12).¹⁷⁵

The term *chalkeion* designating the instrument of Dodone is generally found in post-classical literary sources, but references to the bronze tripod with continuous sound (ἀσίγητος λέβης) are made since the 4th century BC (Callimachus, *Hymn to Delos* 286). Various authors refer to the prolonged sound produced by the *chalkeion* of Dodone, a quality that is characteristic of gongs, bells and cymbals whose modes of vibration cause the initial sound produced by the impact to echo and reverberate, creating a special acoustic effect. The *chalkeion* from Dodone is usually described as a gong by scholars (Cook 1902; *DarSag* s.v. “tintinnabulum”, 342), but it could be considered as a large bell, given that the vibrating part of a tripod is near its rim and the bottom part below the legs would constitute a sort of node (non-vibrating area), similar to the vibrating pattern of the bell. The sound of the *chalkeion* could be comparable to the sounding of the temple cup bells/gongs used in Buddhist rites, that are deep bowl-shaped vessels set on a cushion (creating a node at the bottom) and struck with a leather mallet (Beck 1995, 96, 136 pl. 37, 138 pl. 40).

Apollodorus informs us that the ἡχεῖον (*echeion*) was included in the Eleusinian Mysteries, and was played at the phase of the ritual when the hierophant was pleading Kore to emerge from the Underworld; in the same verse he mentions that a tripod (λέβης) was beaten when a

¹⁷⁴ Suda s.v. “Δωδωναῖον χαλκεῖον”; Stephanos Byzantios s.v. “Δωδώνη”; Eustathius mentions a parallel (and not circular) arrangement of the tripods (Eustathius, *Od.* 15.327). The instrument is fully discussed by Cook 1902 with further literary references.

¹⁷⁵ Cook gives parallels for the use of whip having a prophylactic character, and especially when used in resounding bronze (Cook 1902, 24-5). Whips or flywhisks beating the air are sometimes seen in Egyptian musical iconography in association with harps, seistra and menats (Hathoric cult); their use may have been along similar lines, to avert evil in the course of the ritual (Manniche 1991, 64, 115). Similar whisks are repeatedly seen in Near Eastern religious iconography; they are common in processional scenes with a seated figure (deity or king) in front of a table approached by a figure usually interpreted as a priestess beating the air with a whisk-like object (for example see Dentzer 1982, fig. 32, 37, 45). The object is included in two analogous processional scenes including musicians that are depicted on two bronze bowls from Sparta and Crete (Cat.179, 187); it is always held by the “priestess” approaching the table. A bronze figurine of Min-Amos with a whip was dedicated to the Heraion at Samos (Schmidt 1972, 23, B1446, pl. 26). Suda reports that whips (μάστιγες) are used in India at war instead of trumpets (Suda s.v. “Σάλπιγξ”, “...ἀντὶ σάλπιγγος αὐτοῖς [Ἰνδοῖς] εἰσὶν αἱ μάστιγες, ἃς ἀποκτυποῦσιν εἰς τὸν ἄερα).

Spartan King died.¹⁷⁶ This implies that the *echeion* was not a cymbal as interpreted by Michaelidis (1989, 140) but an instrument of different form and playing technique associated with the tripod. According to Hesychius, the word also meant the soundbox of a lyre or a magadis (a sort of harp), but from other post-classical sources (from the 2nd century AD onwards) it becomes clear that it denoted any resonant concavity (like the mouth cavity echoing and amplifying the voice for instance).¹⁷⁷ The *echeion* is reported to be made of bronze (χαλκόν) both by Hesychius and Plutarch (*Crassus* 23.9.3-4). Given the association of *echeion* with the tripod in Apollodorus, and with the bell and the cymbal in Hesychius, we can envisage with some certainty a bronze vessel of some sort that was struck. As already noted (chapter 4.1.0), Buschala has proposed an alternative reading for the word *echeion* in the passage from Plutarch describing the Parthian instrument of war, and she interprets it as a bronze gong (ἡχείοις χαλκοῖς) beaten with a leather bound stricker, the *rhoptron*.¹⁷⁸ Marcuse proposed that the term *echeion* denotes a bossless gong (*Survey* 52). Vitruvius mentions in his architectural treatise that *echeia* were placed at various parts of the theatre in order to amplify sound; from this it is surmised that they must have had hollow vessel-shaped bodies, preferably wide in diameter (like gongs).

4.2.1 Gong - Disk

Gongs are cast of bronze, circular in shape, with deep rim; usually they are made of a thin sheet of metal, like cymbals. They can have a protruding central dome and definite pitch, or a flat surface and indefinite pitch (known as tam tams). The bossed gongs need to be struck in the centre, whereas those without boss may be struck off centre. The origin of the gong is uncertain, but its oldest form must have been flat and Sachs surmises that it was a descendant to the frame drum made out of a more precious material (*Survey* 46; *History* 240; *NGDMI ii*, s.v. “Gong”).

¹⁷⁶ Scholia in Theocritum 35/36b.3-5, “Αθήνησι τὸν ἱεροφάντην τῆς Κόρης ἐπικαλουμένης ἐπικρούειν τὸ καλούμενον ἡχεῖον· καὶ παρὰ Λάκωσι βασιλέως ἀποθανόντος εἰώθασι κρούειν λέβητα.”. See *NGDMI ii*, s.v. “Gong” 61 for similar practice of announcing the death of a male with strokes on a gong in the Far East.

¹⁷⁷ Galenus Med. *Περὶ Χρεῖας Μορίων* 3.526.2; Oribasius Med. *Collectiones Medicae (libri incerti)* 62.23.5, 62.27.8

¹⁷⁸ Plutarch *Crassus* 23.9.3-4 “Πάρθοι γὰρ....ρόπτρα βυρσοπαγῇ καὶ κοῖλα περιτείναντες ἡχείοις χαλκοῖς ἅμα πολλαχόθεν ἐπιδουποῦσι”. Contra Mathiesen who interprets the instrument as a sort of drum with fitted bronze bells in the snare similar to the Indian tympana

Apart from the literary attestations for the use of bronze tripods and cauldrons as gongs, there is no secure material evidence for actual gongs in the Greek and Cypriote archaeological context.¹⁷⁹ It has been suggested that a nearly flat bronze disc of unknown provenance, now in New York (MMNY Inv. No. 1523), may have been a bronze tympanon or gong (Snodgrass 1964, 41 A50). It has a diameter of 0.208 and four pairs of attachment holes on the periphery (three pairs on one side and one pair on the opposite side). Snodgrass proposed that these holes served for the attachment of a large handle or cord, “with perhaps a cross-strand to the far edge to steady the instrument in the hand” (Snodgrass 1964, 46). Suspension holes for a cord are indeed necessary as gongs are usually suspended so that they can vibrate freely once they are struck, but Snodgrass based his view of the gong on the false assumption that two such instruments are held by handles and clashed against each other, a practice that he thought was consistent with the representation on the so-called “tympanon” from the Idaean Cave in Crete (Cat.178).

(M) 178) Votive sheet (tympanon). *HM* Inv. No. 9. From the Idaean Cave, Crete. (Fig. 4.24)

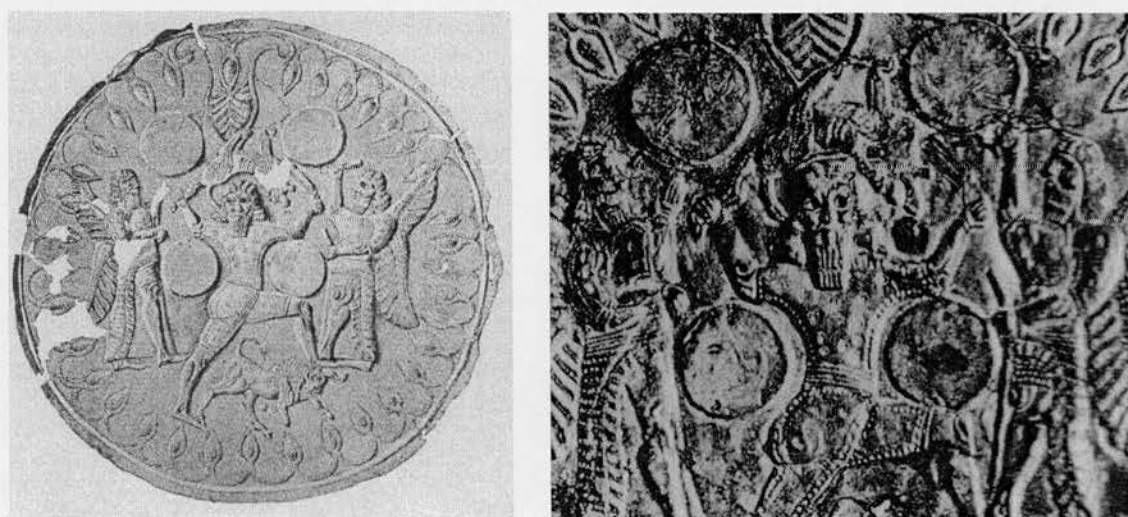
The “tympanon” (Fig. 4.24) was deposited in the Idaean Cave, where allegedly Zeus was hidden from his father Kronos as an infant and was protected by the Kouretes who covered his cries by dancing and making loud noise by beating their shields with swords, or by clashing *kymbala* (cymbals/resonant concave bodies/gongs) and *krotala* (clappers).¹⁸⁰ The Kouretes were initiated young men and attendants of the Mother Goddess, who, according to Hesiod, favoured dancing and were linked to similar bands like the Telchines, Korybantes, Kabeiroi and Daktyloi (see Strabo *Geogr.* 10.3.8 ff. discussing the name Kouretes). They were unmarried and chosen for the war dance connected with rituals of the Mother Goddess. In Crete the cult of Zeus has elements of the Dionysian cult such as the death and rebirth of the god and his noise making attendants, the description of the latter in literature being

(description in Hesychius s.v. “Τύμπανα”) and the sound device used in stage for thunder noise (Mathiesen 1999, 174; Sch.*Nubes* 292); see previous discussion on the *rhoptron* (chapter 4.1.0).

¹⁷⁹ The only known ancient gongs come from the Roman world (see *NGDMI ii*, 61 and previous discussion on disk [Variation (b)]).

¹⁸⁰ See Callimachus, *Hymn to Zeus* 50-2, Sch.*Soph. Ajax* 699e.4 (text in previous n. 100) and Strabo *Geogr.* 10.3.7.19-23 for Kouretes beating drums (*tympana*), *kymbala* and arms (*ὄπλων*) during their noisy orgiastic dancing (especially 10.3.7.20-22, “ἐνοπλίῳ κινήσει μετὰ θορύβου καὶ ψόφου καὶ κυμβάλων καὶ τυμπάνων καὶ ὄπλων”). The beating of weapons (*ἔντεα*) and bronze *krotala* in order to ensure fertility is also mentioned in connection with Artemis (Callimachus *Fragmenta Lyrica Adespota* 37, especially 761.1-5, “...μητρὸς ὀρείης φιλόθυρσοι δρομάδες αἷς ἔντεα παταγεῖται καὶ χάλκεα κρόταλα....βλαστει δ’ ἐπὶ γῆς δένδρεα παντοῖα φύοντα.”).

comparable with that of the Bacchants (Nilsson 1950, 577-9). The cult at the Idaean Cave in particular is associated with fertility/regeneration and initiation rituals, both including a process of pretend death followed by revival as a new-born grown deity or youth respectively (Willets 1962, 88-9, 213, 239 ff; Harrison 1912; West 1965). This explains the numerous dedications of votive imitations of shields or the actual bronze facing of a shield (Forthingham 1888; Kunze 1931; Dunbabin 1957, 40, pl. IX; Snodgrass 1964, pl. 23; Blome 1982, 15 ff.) that were apparently associated with the initiation rites of young males entering adulthood. The rites probably included some sort of armed dance, in the model of the Kouretes dancing and beating their shields.



a.
Fig. 4.24: Cat.178. a) Full view (after Forthingham 1888, pl. XVI). b) Detail (after Boardman 1980, fig. 26).

The “tympanon” (Cat.178) is a flat bronze disc of 0.55 in diameter, with embossed decoration (Fig. 4.24a). It is an intriguing object, as its form and decoration do not conform to the other shield bosses and shield facings. The thin metal sheet with holes left and right at the top for suspension as well as the large size of Cat.178 recall the tam tams or bossless gongs still used in the Far East, but its border has continuous perforations which suggest that it was adjusted on some sort of frame or support and its embossed decoration covers the whole surface without leaving a space for it to be struck. There are no comparable bronze discs of similar type from the Orient that might suggest the function of this object. Given its large size it has been recently proposed that this votive sheet is itself shaped as a non-functioning tympanon or gong, whose performance is depicted on the scene decorating its surface (Braun-Holzinger & Matthäus 2000, 307-9; *Aign* 58).

The iconography of the tympanon is Assyrianising in style, but most scholars believe it is of Cretan manufacture, probably forged by immigrant bronzesmiths and their Cretan apprentices.¹⁸¹ In the centre a heroic figure or god in triumphant pose has one leg on a bull's head while he swings a lion above his head.¹⁸² He is flanked by two winged daemons that raise their hands towards four floating and diametrically opposed embossed discs. The right daemon holds one oblong object in his left hand but it is not clear whether he has another one in his right hand (Fig. 4.24b).¹⁸³ Most scholars have associated the pose of the daemons with the discs and some have interpreted them as beating tambourines (Thiersch 1913, 47 ff.; Kunze 1931, 197 ff.; *Aign* 57), kettle drums (Poulsen 1912, 81-2) or cymbals (Boardman 1980, 58), although some are sceptical as to whether the discs represent instruments (Wegner 1949, 65-6; Canciani 1970, 142).¹⁸⁴

This particular scene is unparalleled in the Orient and it seems that the artist combined freely the iconographic models of the Eastern religious/mythical repertoire, such as the winged daemons and the animal-smiting god/hero. Winged gods/daemons playing lutes and tambourine are known from a Kassite stele dated to the second quarter of the 12th century BC (Fig. 4.25a).¹⁸⁵ Nevertheless, the motif of a winged god/musician is not a common one in Near Eastern (Mesopotamian and Levantine) iconography. It is found again four centuries later, represented on a seal stone belonging to the Lyre Player Group and dated to the late 8th century BC (Muscarella 1981, 166 no. 138; Boardman 1990, 16 no. 164, fig. 14).¹⁸⁶ The seal

¹⁸¹ Kunze 1931; Dunbabin 1957, 41; Blome 1982; Coldstream 1977, 287; the same view is attained for the workmanship of the shields from the Idaean Cave (Hoffmann 1997; Boardman 1961). Earlier views grant it to be the work of a Phoenician artist from the metal workshops of Tyre, or from Nineveh where immigrant artist from Syria and Phoenicia had settled; Forthingham stressed that it differs in style and execution from the shields found in the Idaean Cave and must have been made in another artistic centre (Forthingham 1888, 439-440).

¹⁸² Dunbabin compared the style of this figure with sculptures of the Assyrian king Ashur-nasir-pal (1957, 41, pl. X:2). Forthingham interpreted him as Herakles-Melkart inspired by the Assyrian solar gods Izdubar and Merodach represented on seals in the same fashion, stepping or standing on a bull and holding another animal above the head (1888, 438, fig. 13).

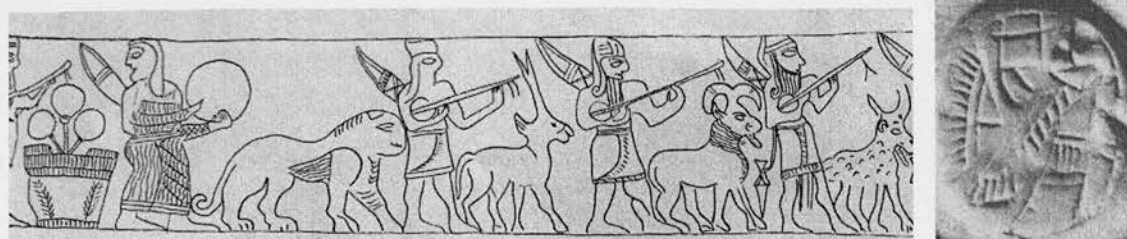
¹⁸³ The illustration in Forthingham 1888 shows one object in each hand of the daemon on the right, but only the left object is visible in the published photographs in Boardman 1980 and elsewhere (see Figs. 4.24a, b). Canciani (1970, 142) and *Aign* (57, fig. 24) mention two oblong objects.

¹⁸⁴ Forthingham 1888 does not connect the daemons with the discs, which he must therefore consider to be merely decorative.

¹⁸⁵ *MiB-Mesopotamien* 104-5, fig. 110-2; Spycket 1972, 198-9, fig. 48. Note that the tambourine in the Kassite scene is nevertheless played by a female daemon.

¹⁸⁶ The Lyre Player Group of seals is a corpus of intaglios thought to be of Cilician/North Syrian manufacture (Boardman & Buchner 1966; Boardman 1990); Rhodian and in some cases Cypriote manufacture had previously been suggested (Porada 1956). Their distribution is wide and spans from South Italy to Greece and Cyprus, with only a few isolated examples from the Levant; for the Greek and Cypriote examples see Appendix I (Cat 193-201) and chapter 7.

is of uncertain provenance (Anatolian/Cilician?) and is unique among the whole corpus in representing a winged male lyre player (Fig. 4.25b). If the winged daemons of Cat.178 are indeed musicians with percussion instruments, the Kassite relief depicting a female winged tambourine player would be the only comparable representation, although the Cretan figures do not clearly play an instrument. In any case, the overall concept of the imagery must have originated from such Oriental mythical scenes of the LBA.



a. b.
Fig. 4.25: a) Kassite relief stele with winged daemons playing lute and tambourine. *Louvre Sb 25* (after Spycket 1972, 198-9, fig. 48). b) Serpentine seal of the Lyre Player Group with winged lyre player. Jerusalem, Bible Lands Museum (after Muscarella 1981, 166 no. 138).

Given the oblong object held by the right figure and the position of the arms of the winged daemons that does not allude to the usual playing technique of the frame drum (compare with Fig. 4.25a and see chapter 5), the embossed discs on the Cretan votive sheet could be interpreted as gongs or *tympana* (drums) beaten with beaters rather than with bare hands. This interpretation is in keeping with the particular cult of Zeus at the Idaean Cave and the loud sounds made by the Kouretes beating their shields with swords. Therefore Aign proposed that on Cat.178 are represented shields beaten with beaters for large *tympana* (Aign 59).¹⁸⁷ The problem with this identification is that the size of the discs is too small for a shield. It is similar to the size of large tambourines depicted on Neo-Assyrian, Cypro-Phoenician and Egyptian Iron Age representations, always shown being played with the bare palm of one or both hands. It can also be compared with the large tambourines held by a female figure on a relief plaque from Praisos in Crete (Cat. 74, and the similar Cat. 75 of unknown provenance).¹⁸⁸ The use of sticks or beaters also presents problems. Beaters are depicted in

¹⁸⁷ For Roman representations of the Kouretes dancing and beating their shields see *LIMC VIII.2*, 503-4, "Kouretes, Korybantes" 21, 27. See also the discussion on Cat.4 in the following chapter (6.1.2).

¹⁸⁸ The discs on the relief plaques of Cat. 74 and 75 are generally thought to be tambourines, but, as with the discs on the "tympanon", it has also been suggested that they might represent shields (see discussion in chapter 5).

Bronze Age Mesopotamia together with giant frame drums,¹⁸⁹ and in one occasion together with small tambourines.¹⁹⁰ There are no exact parallels for the use of beaters with tambourines as large as the discs shown on Cat.178; beaters are lacking altogether from musical scenes of the EIA.¹⁹¹ Furthermore, it is questionable how the representation of beaters on Cat.178 could have been drawn directly from the few earlier Oriental artistic models. As pictorial evidence for drum playing with a beater is not found in Greece at any period, it could be argued that this iconographic motif was particularly devised by the artist of Cat.178 in order to express pictorially the specific character of the mythical Kouretes beating their shields, whose identity was not fully manifested by the generic winged daemon/musician motif. In this way, allusions would also be made to the similar local practice of beating shields and other percussion instruments at the dances performed at the course of the initiatory rites taking place at the proximity of the Idaean Cave. It should be noted that the beating of a shield does not necessarily imply metallic sound, since the main body of the shields was made of layers of hide or wood and only the central part was initially covered with a bronze facing (Snodgrass 1964, 37-8; *Survey* 119).

Both the rendering of the instrument and the playing technique are not clear and diagnostic of the instrument represented. It could equally refer to a drum, a gong/bronze disc or even the beating of a shield (covered partially or completely with a bronze facing). The coupled discs are also puzzling, if the scene intended to portray any of the above instruments. It has been suggested that the doubling of the discs is part of the symmetrical compositional syntax of the image and not a feature of the performance (Braun-Holzinger & Matthäus 2000, 309). Therefore, one must have the sounding of one disc in mind when looking for parallels in musical content. An Anatolian relief from Karatepe dated at ca. 700 BC may offer such a parallel. It shows two female figures with raised arms, their hands placed on a single disc of rather large diameter; below the disc is a smaller scale male tambourine player (Fig. 4.26a).

¹⁸⁹ Giant drums played with plain hands and beaters are seen on Old Babylonian reliefs of the early 2nd millennium BC (*MiB-Mesopotamien* 68-73; Dumbrill 1998, 424-8, pls. 14-20; Duchesne-Guillemin 1980-1, 390, pls. 37-39). The beaters are oblong objects resembling the one held by the right daemon on our Cat.178.

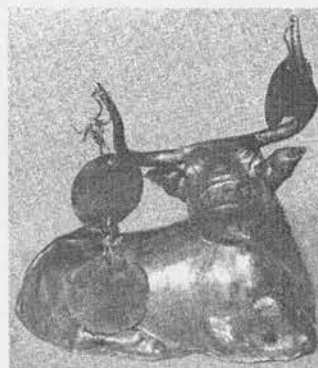
¹⁹⁰ See Spycket 1972, 169 fig. 15 for a representation from Tell Agrab dated to the 3rd millennium BC; it shows nude females holding small discs at face level and striking them with long sticks. Spycket notes that this playing action is not seen with small frame drums and she proposes metal gongs, but one would expect gongs to be suspended and not held as the latter would stop them from vibrating and would dampen the sound.

¹⁹¹ Braun suggested that an Iron Age terracotta from Megiddo is striking a small frame drum with a stick, but the hand position is different and the stick is not visible in the illustration (Braun 2002, 129, pl. IV.11). Beaters are depicted again in the Roman period, for instance in representations of Attis striking a frame drum with a stick (*LIMC III.2*, 27, Attis 248), but in Greece throughout the Iron Age beating the drums with bare hands is the common playing technique depicted on art.

He holds the tambourine from below and plays it with the right hand in the usual manner, whereas the two females clench their hands and appear to beat the disc with the outer palm, as if they are knocking on it.¹⁹² This action could indeed make a drum skin resonate, but it is more likely to be used in order to cause a metal plate to sound in the absence of a beater.¹⁹³ The raised arms of the females and the high placement of the disc which is not held but floating in the field (apparently suspended) recall the position of the discs and the hands of the daemons on the Cretan artefact of Cat.178, which are shown vaguely clenched (although they are not placed directly onto the discs).¹⁹⁴



a.



b.

Fig. 4.26: a) Relief from Karatepe. 700 BC (after *NGDMM ii*, s.v. "Anatolia", 389 fig. 4). b) Golden statuette of a bull with two discs hanging from the horns. From chamber tomb 68 at Mycenae. LH:IIIA. Ht.: 0.04. *NMA* Inv. No. 2947 (after Hawkes 1968, pl. 28).

¹⁹² These features of the female performance have not been addressed before; scholars tend to focus on the lyres, double auloi and frame drum that are also represented on the Karatepe relief and consider the females as tambourine players in analogy with the male figure between them (*Aign* 175, A/6, 102; *NGDMM* s.v. "Anatolia", 389). For contextual and stylistic analysis of the Karatepe reliefs see Winter 1979.

¹⁹³ Bronze bells, cymbals and gongs produce a soft, yet still distinctive and resonant sound if simply knocked with the tip or the knuckle of the finger.

¹⁹⁴ A golden statuette found in a LBA chamber tomb at Mycenae (Fig. 4.26b) is relevant to our discussion on gongs and bronze discs, as it shows two such flat discs hanging from the horns of a bull (*Kretika Chronika* 27, 380). The bull was an important symbol for the Minoan-Mycenaean cult and religion, connected with the sun and fertility and this is manifested in Minoan-Mycenaean art as well as in myth. For example, Zeus is transformed into a bull in order to abduct Europa and bring her to Crete (for association of Zeus with the weather god Baal and Europa with the taumorphic goddess Ishtar see Otto 2000); similarly, Zeus Zagreus (guarded as a child by the Kouretes) is a taumorphic daemon that gets killed and devoured (Lonsdale 1995, 280-1). According to some literary sources, the dance of the Kouretes imitated the way bulls were "dancing" by butting their heads (Willettts 1962, 113 with references); were they also beating shields or tympana/gongs at the same time? The golden bull figurine with pairs of discs on the horns might have compressed these symbolic associations and cult practices in an intriguing and unusual pictorial form.

4.2.2 Bell

4.2.2.1 Typology

The most characteristic feature of open bells, ancient and modern, is their cup-shaped hollow body which vibrates when struck by a clapper hanging inside or when hit by a hammer on the outer surface.¹⁹⁵ In ancient bells the clapper was usually strung by a cord hanging through one or two holes opened at the vertex of the bell (seen on most examples of bells catalogued in Appendix II); alternatively, the cord hang from a staple on the inside of the bell (BE.4, 15c, 44f), or was looped around the handle (BE.16). Clappers are usually missing from the surviving bells, but when they are preserved they are usually oblong, pellet- or pear-shaped (BE.13, 15a, 16, 44b and the clapper of RA.20).

Bells can be made of metal (bronze and its alloys or iron), wood or clay. Bronze bells usually have an iron clapper that leaves traces of rust on the inside (BE.15a, 16, 39, 40a and h, 44f, I, 46b, c, e and f); the clapper of terracotta bells is also made of clay (BE.13). The sound of metal bells is bright, ringing and sonorous, with a slow decay. Clay and wooden instruments have a softer sound with short resonance, but they can still produce different tones, just like metal bells, according to the specifications of the instrument. The difference in material does not diminish the rhythmical qualities or symbolic properties of the clay and wooden bells, for they still have a tinkling, clear and piercing acoustic effect.

Unlike cymbals, bronze bells benefit from thick walls as this feature gives them fuller sound with longer sustain; thick cast walls are observed on numerous bells from Samos (BE.44), Cyprus (BE.15) and the LG example from Oropos (BE.41).¹⁹⁶ Apart from the thickness and the material of the bell, the shape of its sounding body is an important factor that affects sound quality, because it influences the complex vibration pattern of the wall of the bell.¹⁹⁷ The body of the bell presents many variations according to its shape in profile and cross-section. Their outline can be conical or cylindrical, with curved or straight sides, with truncated or domed

¹⁹⁵ Open bells, as opposed to closed bells, have an open lower body that resembles upturned cups and their clapper strikes the rim of the body. Closed bells have jingling part or parts moving freely inside a spherical body; they are also known as rattles and jingles. Here they are classified as shaken idiopophones and discussed in the following chapter 4.3.1.

¹⁹⁶ The material and its thickness affect the weight of the bell and the sound it produces. Therefore, weight can be more useful than dimension measurements as a means for differentiating bells, because bells of similar size may differ greatly in weight and, in effect, in their sound output (*NGDMM* s.v. "Bells", 430).

¹⁹⁷ For the vibrational motion of bells see Fletcher & Rossing 1998, 676 ff. and *NGDMM* ii, s.v. "Bells".

vertex, with or without flaring rim. They can be circular, polygonal, oval or rectangular in cross-section, with rounded or pointed corners. A collective diagram of bell body shapes from various parts of the world is shown in Fig. 4.27. The shape of the handles and the decoration of the body can also differ from one bell to the other.

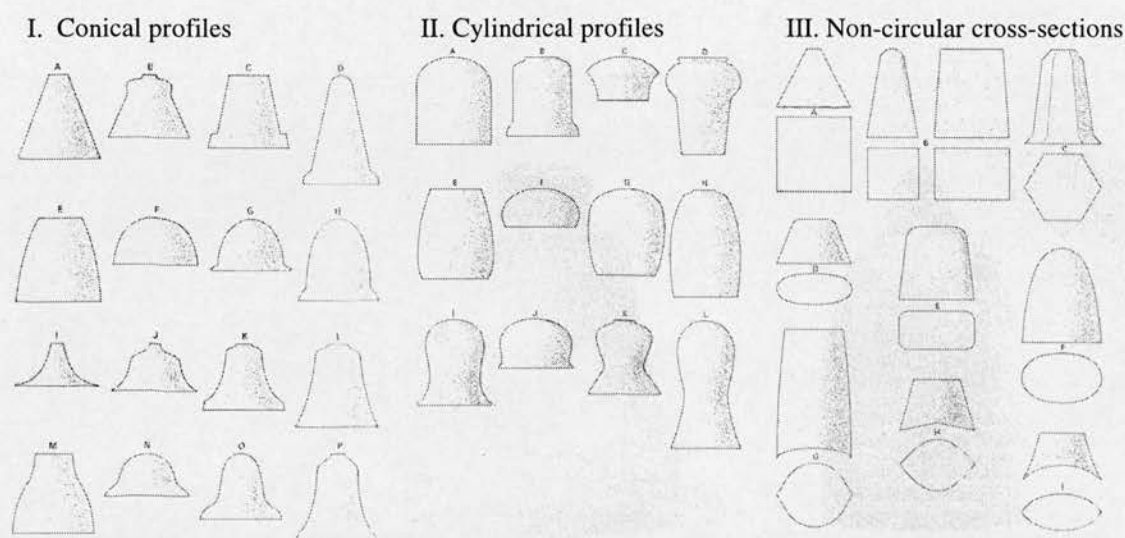


Fig. 4.27: Bell types (after Price 1983, x-xi, Diagrams 1-3).

Bells, especially the metal ones, have a definite pitch. Modern bells are tuned by carefully thinning the inside surface at selected heights. Sets of tuned bells are known from 5th century BC China (*NGDMI ii*, s.v. “Bells” 431). The literary references to the tuned discs with different thickness invented by Hippasus of Metapontum (see chapter 4.2.0; Aristoxenus *Fragmenta* 90; *West* 128, 234 n. 38) indicate that the Greeks also knew how to control the sound of the bell, at least to the extent that the general thickness can influence the pitch. Internal rings that would determine the pitch in the modern sense do not feature on ancient Greek and Cypriote bells. An easier way to lower the pitch, however, is to open slits or cuts on the wall of the bell and examples from Greece and the Near East confirm that this practice was used.¹⁹⁸ The effort to control the pitch indicates that the sound of bells was considered musical. It is possible that it had to be in harmony with other instruments or bells, especially when it was worn by dancers or members of a music ensemble, but also when it was hang on the necks of animals. In modern Greece, shepherds make sure that the different tones of the

¹⁹⁸ See BE.10, 44b, e, l for slits and BE.34, 43, 44a, h for cuts on the wall of the bell. Villing suggests that lowering the pitch was done either in order to produce “darker” sounds with greater apotropaic powers or for practical reasons, as low frequencies travel further, making it easier to track animals (Villing 2002, 244 n. 12, 272 n. 156).

sheep-bells worn by their flock are in harmony with each other; they also match the various pitches and timbres of the bells with the scale of their flutes (Anoyanakis 1979, 64 ff.).

According to Price, small bronze circular bells came into use first in south-eastern Asia before 3000 BC and from there they spread to China, India and the Near East (*NGDMM ii*, s.v. “Bell (i)”, 431). From the early 1st millennium large numbers of bells are found in the Near East from north-west Persia, north-west Iran, the area around Caucasus and Urartu (*Survey 58*; Rimmer 1969, pls. XIX:c, d; Möbius 1938; Calmeyer 1969; Muscarella 1988; Villing 2002, 254 ff.). About eighty locally made bronze bells with iron clappers dating to the 9th-8th centuries BC were found stored at the Palace at Nineveh, and Neo-Assyrian examples are also known from other sites.¹⁹⁹ In Egypt, bells first appear between the XXII-XXIV Dynasties (950-730 BC) and are found in grave contexts (Hickmann 1951, 3, fig. 8:1-3, 7-9). The appearance of bells in Greece and Cyprus is contemporary with the Assyrian and Egyptian attestations. The earliest known examples come from Cyprus; they are made of clay and were deposited in a tomb dated at the mid-8th century BC (BE.13). In Greece, a bronze bell from Oropos (BE.41) dated at the end of the LG period was found on the bench inside Building Θ which, according to the excavator, had a dual character, ritual and domestic (Mazarakis-Ainian 1996, 78; 2002, 161). Many bronze bells have also been deposited at the Heraion at Samos (BE.44); some of them are securely dated at the beginning of the 7th century BC or even earlier.²⁰⁰ From then on, bronze and terracotta bells become a common find in sanctuaries and graves of the 1st millennium BC in Greece and Cyprus.²⁰¹ Israel/Palestine present a different picture though, with very few bells dating to pre-Hellenistic times and,

¹⁹⁹ Rimmer 1969 37-9, pls. XIX:a, b, XX; Villing 2002, 265-6, n. 117; *MiB-Mesopotamien* 112-3, figs. 130-2. Blades proposed that the various sizes (and pitches) of the bells from Nimrud indicate that they were “arranged in regular order in order to conform to a succession of intervals” (Blades 1984, 164), that is, adhering to a certain set of harmonies.

²⁰⁰ BE.44b, c and BE.44e, f are dated before 670 and 640/20 respectively by their context, whereas BE.44a has parallels from Urartu dating from 800 BC onwards. For Urartian bells see Muscarella 1988 and references in Villing 2002, 261 n. 97.

²⁰¹ Most sites that have produced bells are represented in the list of bells catalogued in Appendix II. An up-to-date collection of the material is provided by Villing 2002. Bells are dedicated in large quantities at the Sanctuaries of Hera at Samos, Olympia, Athena Chalkioikos at Sparta and the Kabeireion at Thebes; fewer or single specimens come from sanctuaries at Messenia (Apollo Korynthos), Menelaion, Aigiai (possibly Artemis), Perachora (Heraion), Argos (Heraion), Eutresis (possibly Demeter), Delphi, Pherai (Artemis Enodia), Delos, Chios (Apollo Phenaios and Harbour sanctuary), Aigina, (Aphaia), the Athenian Acropolis and possibly the Corycian cave (Pan and Nymphs). They are also found in tombs at Halae, Thespieae, Thebes, Kerameikos and Messenia, in settlement and grave contexts at Olynthus, Pella and at the Athenian Agora. In Cyprus, large quantities of clay bells were found at the Sanctuary of Aphrodite at Amathus, and bronze specimens come from the sanctuary of Athena-Anat at Idalion; the majority of bells, though, were deposited in burials (at Palaepaphos [Skales and Xylinos], Salamis, Amathus, Kourion, Idalion, Nicosia and elsewhere).

according to Braun, some of these may have been imports rather than indigenous products (Braun 2002, 196).

The EIA bells from Greece, Cyprus, Assyria and Egypt in general have common morphological features (size and shapes). There is no reason to doubt that the Oropos bell was locally made, since bronze-working was one of the activities of the population and kilns containing scrap metal were found at the site (Mazarakis-Ainian 1998 and 2002). Many of the Samian bells, however, have Caucasian and Urartian parallels²⁰² and it is possible that they were imports from those areas (Möbius 1938; Jantsen 1972), although local manufacture for some of them inspired from the eastern prototypes cannot be excluded (Gehrig 1964); the latter view is strengthened by the fact that Assyrian influence has also been suggested recently for some of the Samian bells (BE.44e, f; Villing 2002, 265), indicating more than one sources of inspiration.²⁰³

Many of the shapes seen on Fig. 4.27 are also encountered in the EIA Greek and Cypriote clay and bronze bells. The commonest form is circular in cross-section, but there are also examples which exhibit bodies with rectangular (BE.44k, l), rectangular with rounded corners (BE.4, 6, 38, 39), triangular (BE.44h), ovoid (BE.5, 17b, 44i) or polygonal (BE.43, 44a) cross-section, both in bronze and clay. With regard the profile, some bells are cylindrical (BE.1c, 2, 15a, 35, 44e and n, 45, 48b), but the majority are conical/dome-shaped with sides that curve inwards and/or outwards (see descriptions in Appendix II). Sometimes, elaborate shapes combining both the cylinder and the dome are found (BE.42, 44i). Small hemispherical bells are also encountered and are usually of a later date in Greece (BE.40e, 48a).²⁰⁴

Greek and Cypriote bells are designated for suspension and therefore have perforated protrusions or loops at their top. Some scholars have attempted to classify the bells and create a typology using as criteria their body shape, handle formation and decoration.²⁰⁵ The chronological typological development of ancient bells, however, still eludes us since the

²⁰² These are BE.44a, h, k, with cuts on the wall and plastic ribs. Bells featuring slits and sharp conical shape (BE.44b, e, l) are met both in Nimrud and Caucasus (see comments in the catalogue entries); for parallels see Möbius 1938 and Muscarella 1988, 427 ff., nos. 575-576, 586-593.

²⁰³ The difficulty to establish a specific cultural provenance for the simple, plain bells from Samos has been noted by Calmeyer 1969.

²⁰⁴ This is not a diagnostic feature, however, for hemispherical bells are among the earliest shapes attested in Assyria and Egypt (Rimmer 1969, pl. XX:d; Hickmann 1951, fig. 8:1-3).

²⁰⁵ Bouzek 1974, 89 ff. for Greek bells; Hickmann 1951 for Egyptian bells. For typological considerations see also *MGG* and ²*MGG* v, s.v. "Glocken und Glockenspiele" and Villing 2002, 247 n. 27-8.

various shapes are recycled and reused in different periods and localities. A microtaxonomical approach is needed for the examination of the surviving instruments that focuses on each specimen and its associations, as it has been attempted by Villing in her recent publication of ancient bells from the sanctuary of Artemis Orthia at Sparta, where she also addresses other known material from the Aegean (Villing 2002). In general, however, it can be noted that the earliest Greek bronze specimens are characterised by quite tall bodies and an overall tautness in their modelling, as it can be seen on the bells from Oropos (BE.41), Chios (BE.12) and Samos (BE.44e, f, g).

From the Bronze Age, a class of bell-shaped terracottas with loop handle from Crete recall modern sheep-bells (dated from EM:III to MM:II).²⁰⁶ Their body is conical or a truncated cone and some examples have two holes opened at the apex, like those found on Iron Age bronze and clay bells for the suspension of the clapper, but others are pierced at the side of the wall instead, or not pierced at all (Figs. 5.28a, b, d). Evans interpreted these terracottas as bells that would be hang on the trees and sanctuaries for the protection from evil spirits (Fig. 4.28c). All the examples have characteristic horn-shaped formations at the top; some are also painted (Fig. 4.28a). A variation comprises twin bells joined together, surmounted with a bovine figure (Fig. 4.28d), or two bell-shaped bodies fused together.

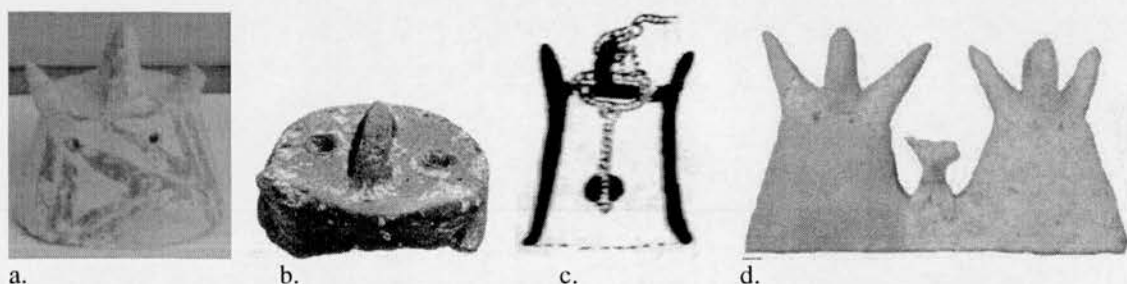


Fig. 4.28: Minoan "sheep-bells": a) From Mallia (Prophetes Elias). *HM* Inv. No. 11005 (photo by author). b) From Archanes, Tomb 6, Building 6 (after Sakellarakis 1973, pl. 171a). c) Hypothetical reconstruction of clapper attachment (after *PM* iv.2, 689, fig. c). d) Twin bells with bovine figure from Tyliossos. *HM* (photo by author).

²⁰⁶ These objects come mostly from sites near Knossos (Tyliossos, Gazi, Giofyrakia, Phoinikia, Jouktas, Archanes, Knossos, Prasa, Poros); one example comes from Vorou (Gortyna). They are usually found in tombs (ossuaries) and settlements, sometimes in pits and wells, suggesting that they may have been foundation deposits. In one case they are found at a peak sanctuary (Jouktas). Their cultic significance is exemplified by the fact that at Knossos (House A) some examples have been found near a hearth, along with the head of a figurine and an incense burner (Pendlebury & Pendlebury 1928-9; *PM* iv.1, 66 ff. fig. 50-1; Gesell 1985, 13). The majority are dated at EM:III-MM:IA, with isolated instances from MM:IB-MM:II (*PM* i, 175 fig. 124; *PM* iv.2, 689; Mackenzie 1903, 167, 180-1, figs. 1, 6; Hatzidakis

Mackenzie considered the objects to be votive sheep-bells and Aign further suggested that the instrument was associated with the bull cult, used as cult equipment (*Aign* 50-1). Other scholars, however, proposed that these objects represent votive robes (Hatzidakis 1912, 229), horned masks associated with house cults (Gesell 1985, 13)²⁰⁷ or schematic bell-shaped female idols (Picard 1937). All the above interpretations have their merit, and it may well be that these terracottas are deliberately ambiguous and polysemous (Morris & Peatfield 1990, 35-7). The piercing at the top of the vertex is best explained by the bell hypotheses, but this feature is not found with all the examples of “sheep-bells”; it is possible that not all specimens signify the same thing. The Minoan bells are unparalleled and geographically confined to the North of Crete; furthermore, it is difficult to explain why such a simple instrument, once employed, would then disappear from the archaeological record of the Mediterranean for more than a millennium, until the beginning of the Iron Age.

4.2.2.2 Iconography and motifs: Early Iron Age

Scholars agree that the earliest function of bells was magical and ritual and their use as musical instruments or signalling devices followed.²⁰⁸ From the references in Greek literature discussed in chapter 4.2.0 (on the term *kōdon*), it becomes apparent that bells were used both for their apotropaic powers in order to avert evil or attract benevolent spirits and for signalling purposes. It is therefore a common practice to hang bells on the neck of animals.²⁰⁹ In one of his tragedies, Euripides mentions many bells being worn by the horse of Rhesos, a hero of eastern origin (*Rhesus* 306-8); accordingly, we have many examples of one or more bells worn by horses depicted on Assyrian reliefs from the second half of the 8th century BC onwards (Fig. 4.29).²¹⁰ In Greece, however, such representations are scarce.

1912, 229, fig. 37:10; Pickard 1937; *Aign* 50-1, II/5, fig. 20; Gesell 1985, 16-7; *Prakt* 1971, 28; Sakellarakis 1973, 171, pl. 171a; *ArchDelt* 1966.B2: 411-412; Morris & Peatfield 1990).

²⁰⁷ The latter view is based on the evidence from a similar faience object with a painted face from Poros, Crete. The appearance of this object recalls later Egyptian bells bearing the face of Bes on their body (Hickmann 1951, fig. 14).

²⁰⁸ For the significance of bells in various cultures see *History* 71 ff.; *Survey* 53 ff.; *NGDMI* ii, s.v. “Bells”; *MGG* and ²*MGG* v, s.v. “Glocken und Glockenspiele”. For bells in ancient Egypt see *MiB-Ägypten* 104; Hickmann 1951 and 1965. For discussion on the apotropaic function of bells in antiquity and the Middle Ages see Schatkin 1978. Their significance in ancient Greece has been addressed recently by Villing 2002.

²⁰⁹ On a Roman painting from a house at Delos (quarter W), a bell is attached at the mane of a pig taken to sacrifice (*BCH XL*, 1916, 213, fig. 29; Villing 2002, 286 fig. 44). The prophylactic character of bells is exemplified by a figurine of a Semitic god mounted on two animals bearing bells, from Doura Europos (*CRAI* 1932, 96).

²¹⁰ *MiB-Mesopotamien* 112, fig. 133; Rimmer 1969, p. XVII-XVIII



Fig. 4.29: Multiple bells on the harness of a horse. Nineveh, North Palace of Ashurbanipal. Relief depicting the king's preparation for the hunt. 645-635 BC. *BM* Inv. No. WA124858-61 (photo by author).

Following the Assyrian practice, bells are depicted on many Cypriote representations of horses from the 8th century onwards (Fig. 4.30). Cat. 41 represents a warrior riding a chariot; four bells are hanging from the neck of the horse in an unrealistic manner, apparently due to the restrictions that the painter encountered in his attempt to render in silhouette the overlapping of the bells with the neck of the horse. Bells are more successfully portrayed on Cypriote terracottas of the CA:I and particularly of the CA:II periods depicting chariots and riders, where special attention is given to show the details of the harnesses of the horses. Cat. 120 is one such example dated at the 7th century BC, with a conical bell attached below the muzzle of the horse; an example of the CA:II period including a warrior rider is shown on Fig. 4.30a.²¹¹ The iconographic evidence is paralleled by the fact that three bronze horse-bells have been found at Tomb 79 at Salamis, apparently worn by the horses that pulled the chariot of the deceased (BE.15; Karageorghis 1973). Nevertheless, hanging bells on animals is not exclusively indicative of warrior or high status. Fig. 4.30b shows a figure engaged in domestic activities, carrying large jars on a mule or donkey that is wearing a small bell (or jingle) on its collar.

- (VP) **41) Oenochoe.** Kouklia Museum Inv. No. 96. From a tomb at Mantissa (east of Kouklia), Cyprus.
- (C) **60) Horse on wheels.** Kerameikos T 828. From Athens, Kerameikos Necropolis (stray-find).
- 120) Horse with bell pendant.** *Louvre* Inv. No. N 3297. From Cyprus, unknown context.

²¹¹ See numerous similar examples collected in *Coroplastic iv*, 61 ff.

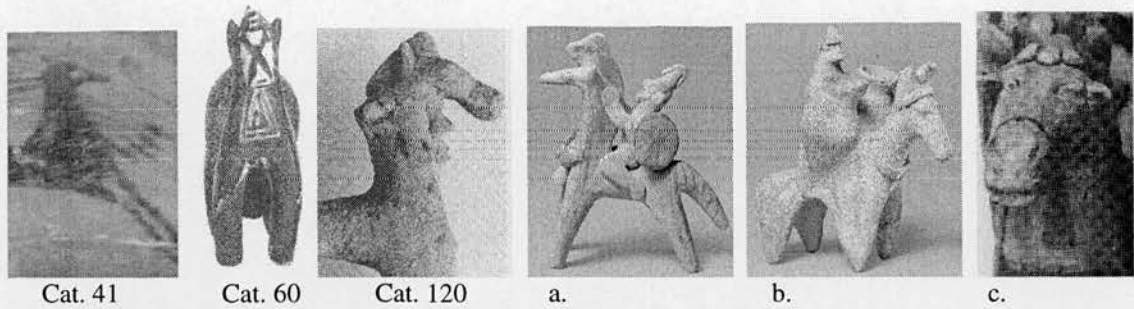


Fig. 4.30: Bells on horses. Cat. 41, 60, 120. a) Horse and rider, from the sanctuary of Apollo Hylates at Kourion, Cyprus. *MMNY* Inv. No. 74.51.1778. b) Donkey and rider, from a tomb at Alambra, Cyprus. *MMNY* Inv. No. 74.51.1787 (after Karageorghis 2000, nos. 244 and 246 respectively). c) Horse from Larnana-Ayios Georghios with painted bell (after *Coroplastica* iv, 116, fig. 67).

In Greece bells are generally not depicted being worn by horses at any period, a fact that has led to the assumption that this was a purely Near Eastern custom and not practiced in the Aegean. Villing, however, has made the interesting suggestion that the imported bells found at Samos were originally parts of harnesses, whose deposition could be indicative of the high status of the worshipper, or which would be associated with an equestrian goddess (she proposes Hera Hippiia). Furthermore, she noted that the large number of bells from Sparta could possibly indicate the connection of bells with horses, since horse racing among other athletic contests was included in certain Spartan festivals (Villing 2002, 273 ff.). In this context, the triangular motif below the muzzle of the LPG clay horse from Kerameikos (Cat. 60) may have been intended to represent schematically a horse-bell; if this is correct, this would be the earliest representation of a bell in the Aegean, dated at the 10th century BC (suggesting that bells were known before their earliest appearance in the archaeological record at the end of the 8th century BC). Some CyproArchaic chariot representations depict the bells worn by the horses in a similar way, as triangles painted on the neck of the animal right below the muzzle (Fig. 4.30c). Elaborate horse trappings that might include bells are also depicted on the François Vase, worn by the horse that is carrying Hephaistos back to Olympus (for discussion of this scene see previous chapter 4.1.2.2).

Bells are known to have been attached to the garments of priests and on the shields of warriors in the Near East,²¹² but none of these practices are found in Greek and Cypriote iconography, although there are literary references to the fear-rousing quality of the bell-sound and to the use of bells in patrolling the city (see chapter 4.2.0). The large amount of bells deposited at the sanctuary of Athena Chalkioikos at Sparta, however, indicates that there must have been a

²¹² Grace 1956, 80 fig.2; Aeschylus *Seven Against Thebes* 385-6; Herodotus *Hist.* 7.41.2; Schatkin 1978, 156; Braun 2002, 195 ff.; see also chapter 4.3

connection with the goddess of war and patroness of bronze-working (see also Villing 2002, 283). This association is illustrated by a cornelian scaraboid from the Late Classical period, depicting a statue of Athena (the figure is standing on a plinth) in fighting pose, with two bells hanging from her spear and shield as part of her gear (Fig. 4.31; Boardman 2001, 207).

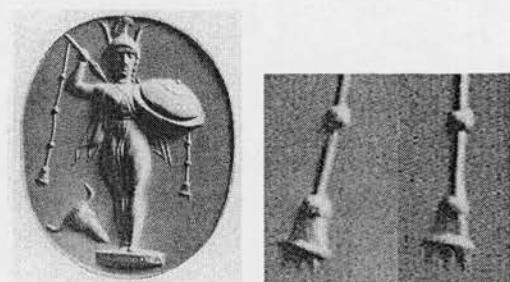


Fig. 4.31: Gem representing Athena and details of bells. 4th century BC (after Boardman 2001, pl. 599).

Because of their magical and prophylactic powers, bells were also worn as amulets. On one of the reliefs from the North-West Palace of Ashurnasirpal at Nimrud the two eagle-headed protective spirits flank the king who is wearing a bell among other pendants (Fig. 4.32a). An example of such a pendant from Israel/Palestine attached to a chain is illustrated in Fig. 4.32b. One Spartan example has preserved a few rings of its chain (BE.46d) and it is possible that many of the Greek examples were worn as amulet-jewellery, hang from necklaces or bracelets. Small bells and bell-pendants have also been recovered from Cyprus, but without preserving the chain (BE.34, 35). Although Greece and Cyprus may have shared the same custom, iconographic evidence for bells as part of the accoutrement comes mainly from Cyprus.²¹³ Many Cypriote terracottas are shown wearing painted conical pendants hang from their necks, which resemble the abovementioned painted triangles denoting horse-bells; it is therefore suggested here that they indicate small bells. In some instances, like on Cat.102, the clapper can also be seen projecting beneath the rim of the bell (Fig. 4.32):

- (C) **81) “Bell-doll” with upraised arms.** *CM* Inv. No. B31/1935. From Cyprus, unknown context.
- 82) Bell-shaped figure with upraised arms.** *BM* Inv. No. 94/11-1/479. From Cyprus, Amathus, Tomb 198
- 84) Figure with upraised arms.** Pierides Foundation. From Cyprus, unknown context.
- 100) Female with amphora on head.** *MMNY* Inv. No. 74.51.1617. From Cyprus, allegedly from a tomb at Episkopi, near Kourion.

²¹³ For the associated Greek bell-shaped suspension rattles see chapter 4.3.1.3 [section on Vessel Rattle pendants/jingles, Variation (a), Type (h)] and Cat. 62, 63, 83.

- 101) **Figure with upraised arms.** *CM* Inv. No. 1976/XII-27/2. From Cyprus, unknown context.
- 102) **Figure with bell pendant.** *LM* Inv. No. AM 595 (79.763.1). From Cyprus, Amathus, Sanctuary of Aphrodite (found at a bothros).

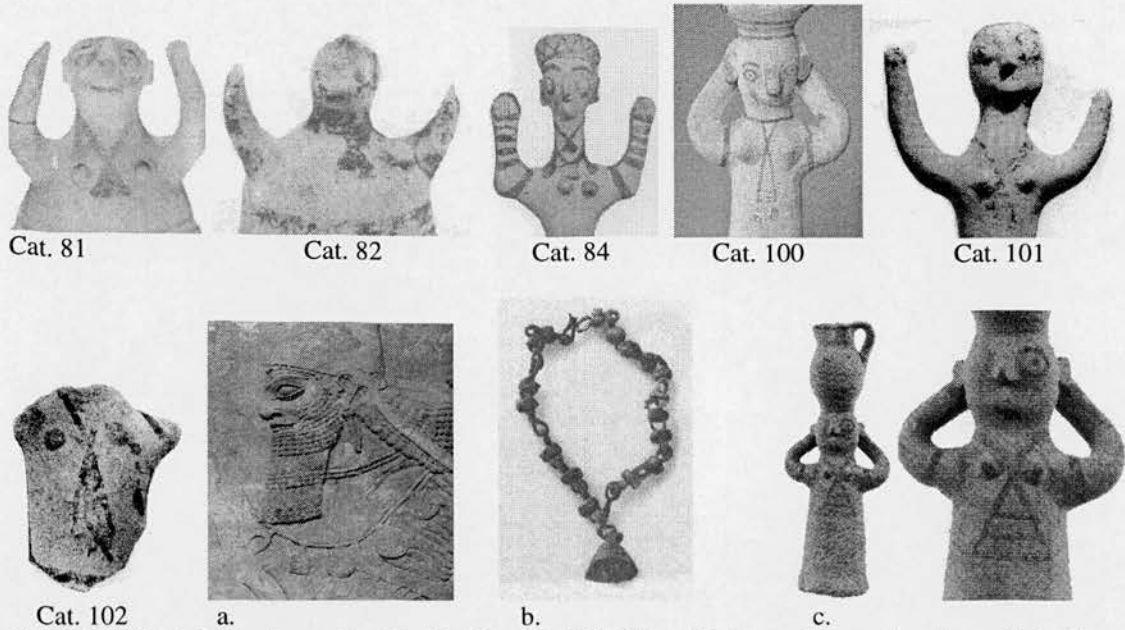


Fig. 4.32: EIA bell pendants, Cat. 81, 82, 84, 100, 101, 102. a) Bell pendant on Assyrian relief. Nimrud Palace, Room F. ca. 865 BC. *BM* Inv. No. WA1245584-5 (photo by author). b) Chain with bell from Israel/Palestine (after Braun 2002, 202 fig. V.10). c) Cypriot terracotta with jug, wearing bell pendant (after *Coroplastic iv*, pl. XII:5).

These pendants are depicted on the following coroplastic types: CG:II-III bell-shaped figurines with mobile legs and upraised arms (Cat. 81, 82),²¹⁴ CG:III/early CA figures with upraised arms (Cat. 84, 101) with and without a polos, CA:I-II figures carrying a jug (Cat. 100 and Fig. 4.32c),²¹⁵ and some examples of the handmade solid variety from Amathus workshop holding a disc/tambourine.²¹⁶ The pendants are usually small and reserved to the area between the breasts, which makes their size consistent with the size of the actual bronze bells from Greece and Cyprus. Sometimes, though, the bells are exaggerated, as on Cat. 100, 102 and Fig. 4.31c, where the pendant extends to the whole area of the upper body. The figures carrying jars probably represent a usual activity of everyday life (*Coroplastic vA*, 18)

²¹⁴ See also chapter 4.3.1.3 [section on Vessel rattle pendants/jingles, Variation (a), Type (h)] for an alternative interpretation of the pendants as jingles.

²¹⁵ See *Coroplastic vA*, 18 ff. cat. nos. I(iii)1, 2, 4, 5, 7, pls. XI-XIII; a similar example that is touching the head instead of carrying a vase also wears a bell-pendant (cat. no. I(ii)2, pl. XI:3).

²¹⁶ See *Coroplastic vA*, cat. no. I(ix)2, 6, 31, pls. XVII, XVIII, XX and our Cat.103 which is discussed in chapter 4.3.1.3.

suggesting that the bell pendant was a common piece of the accoutrement, probably worn as an amulet protecting from evil. The figures with upraised arms, however, manifest the cultic significance of the bell, especially in association with the moment of divine epiphany or *enthousiasmos* which may be visually implied by these images (Karageorghis 1977; Karageorghis 1977b). According to Hickmann there was a double significance of the bells worn by kings/heroic/priestly figures or great warriors, as it is known from the art and literature of many cultures both in antiquity and the Middle Ages: the bell would protect the person who was wearing it from evil, but would also protect the others from the power of that person, especially if these powers were supernatural (Hickmann 1965). This is probably why the Assyrian king flanked by two daemons is also equipped with a bell-pendant that would protect him from the benevolent, yet supernatural, spirits (Fig. 4.32a). Accordingly, in the moments of *enthousiasmos* or divine epiphany that may be portrayed by the Cypriote terracottas on Cat. 81, 82, 84 and 101, the sound of the bell could have been intended to protect the worshipper from the overwhelming effect of the presence of or possession by the divinity.²¹⁷

4.2.2.3 Bell-shaped figurines or anthropomorphic bells?

In the context of the discussion on bells and bell imagery, I would like to address a class of terracotta figurines with a hollow bell-shaped body and mobile legs. The legs are strung from a cord passing through two diametrically opposed holes which are opened at the lower part of the body. The bell form is very prominent with a clearly defined cup-shape. The type of figurines with mobile legs first appears in a CG:I burial from Cyprus (Vandenabeele 1991, 59); the earliest Aegean examples were also found in tombs but are slightly later, dating to the end of the 10th century BC. The Cypriote figurines with mobile legs are far more numerous than those from the Aegean as they continue to be produced during the CA:I period, whereas in Greece this type is not found after the Sub-Geometric period (early 7th c. BC) (Figs. 4.33, 4.34):

- (C)²¹⁸ 57) **Two “Bell-dolls”**. Kerameikos Inv. Nos. 961, 962. From Athens, Kerameikos Necropolis, Tomb 33

²¹⁷ For bells and other idiophones associated with *enthousiasmos* in the Dionysian cult see Bélis 1988c, esp. 15 fig. 7; also Villing 2002, 285 ff.

²¹⁸ See also Cat. 86, 87, 88, 106, 107. Most Cypriote examples are collected in *Coroplastic ii*, 78 ff., cat. LGA(i), pls. XXXIII-XXXV and in *Coroplastic iv*; also Fortin 1996, no. 159 for a CG:II-III specimen. The Cypriote figures have various gestures and some of them hold offerings in their hands. Not all of them have the characteristic cup-shaped bell-form like that of their Aegean counterparts; many of the hollow bodies have a splayed bottom that results from the potter's wheel and is restricted

- 58) Two “Bell-dolls”. Kerameikos Inv. Nos. 2035, 2036. From Athens, Kerameikos Necropolis, Tomb 48.
- 59) Two “Bell-dolls”, *NMA* Inv. No. 18112. From Athens, Nea Ionia cemetery, Pyre B near urn 4.
- 62) “Bell-doll”. *Louvre* Inv. No. CA 573. From Boeotia, unknown context.
- 63) “Bell-doll”. Boston Inv. No. 98.891. From Boeotia, unknown context.
- 64) “Bell-doll”. *Louvre* Inv. No. CA 623. From Boeotia, Thebes, unknown context.
- 68) “Bell-doll”. *Copenhagen*. From Boeotia, Thebes, unknown context.
- 69) “Bell-doll”. Athens, Polytechnion 1974. Allegedly from Thebes, Boeotia.
- 70) “Bell-doll”. Probably from Boeotia, unknown context.
- 81) “Bell-doll” with upraised arms. *CM* Inv. No. B31/1935. From Cyprus, unknown context
- 105) Bell or “Bell-doll” with tambourine. Geneva, Musée d’Art et d’Histoire, Inv. No. HM8586. From Cyprus, unknown context.
- 129) “Bell-doll”. Eretria Museum. From, Euboia, Lefkandi Necropolis, Tomb 22.
- 141) Two “Bell-dolls”. From Skyros, Ayia Anna cemetery, Grave 2.

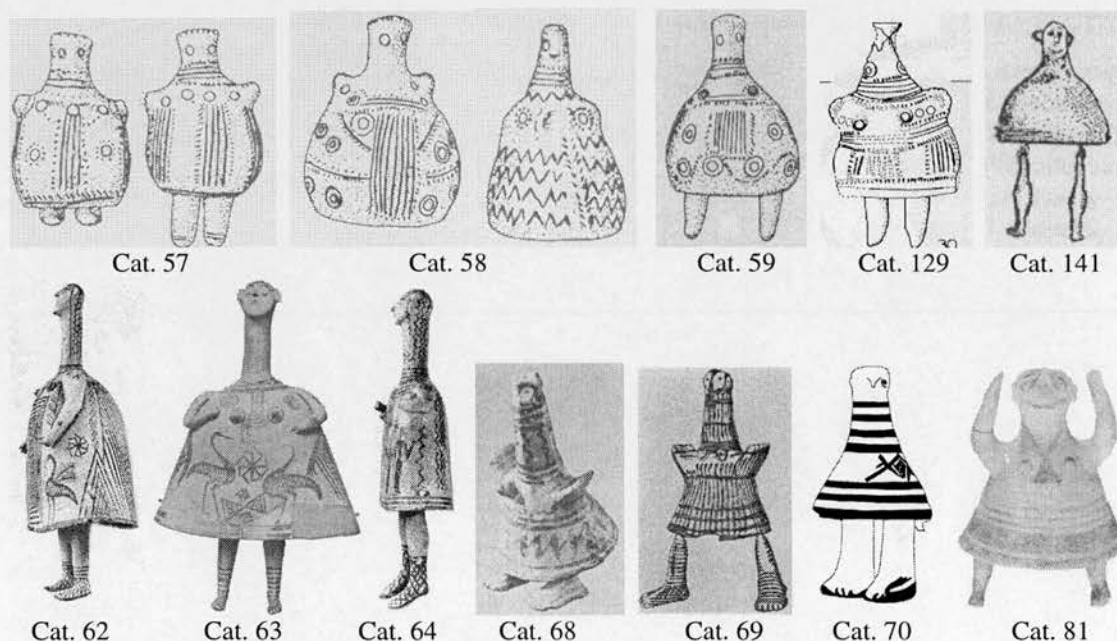


Fig. 4.33: Bell-shaped figurines with mobile legs. Cat. 57-59, 62-64, 68, 70, 81, 105, 129, 141

only to the lower part of the figurine (see Cat. 107 for instance). For the Balkan connections of the Incised Ware of Cat. 57-59 see Bouzek 19174a and 1985, 200, who also suggests that the decoration of the figurines had religious meaning; contra Themelis 1973, 363. For the Boeotian terracottas see Szabó 1994; Ruckert 1976; Müller 1929, 79 ff; Higgins 1967; Dörig 1958.

The amusing aspects of the appearance of these figurines and the liveliness created by the articulated legs, have been considered by archaeologists to be toy characteristics and they often describe this class of figurines as dolls for the entertainment of children, especially since mannequin-like clay dolls with articulated legs and arms are known from later periods (Elderkin 1930).²¹⁹ On the other hand, the imposing size of some Boeotian figures that are over 0.30 high has led to the assumption that they are idols alluding to cult images, in which case they would be suitable objects for votive dedication; furthermore, since most Greek and Cypriote examples of this class are perforated at the top, they may have been suspended as votives in the sanctuaries (Dörig 1958; Vandenabeele 1973; *Coroplastic ii*, 79-82). In this respect, their function would parallel that of actual bells that were also designated for suspension (*DarSag* s.v. “Tintinnabulum”; Cook 1902; *MiB-Griechenland* 60; Villing 2002; Scheurleer 1991, 70), as the moving legs would produce a subtle tingling sound.

From the musicologist’s point of view, the fact which determines the overall appearance of these figurines is the translation of bell structural elements into human form. Cat. 62, 63, 64 from Boeotia have therefore been described as anthropomorphic bells (Price 1983, 74). In her examination of the Boeotian terracottas Grace dismissed this view on the basis that the legs are attached too low to produce any sound by touching the rim of the bell (Grace 1939, 13), but this is not the case with all the examples with mobile legs. The legs of Cat. 57, 59 and 129 for instance are suspended from the mid-length of the body; Cat. 105 has a single perforation at the top of the bell-shaped body (Fig. 4.34), recalling the similar single holes for the suspension of the clapper that are opened on actual terracotta bells (see examples in Appendix II-Bell).

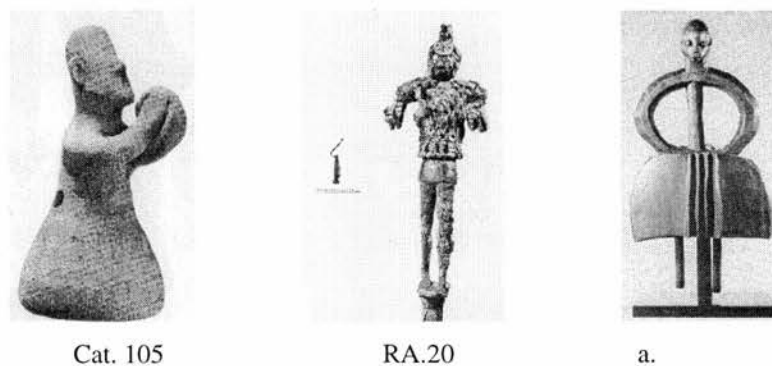


Fig. 4.34: Anthropomorphic bells and rattles: Cat. 105. RA.20. a) Wooden bell from Zaire. Ht.: 0.44 (after Brincard 1989, 139 fig. 25).

²¹⁹ This view has been put forward especially the large number of soldiers with mobile legs, (Karageorghis 1992b; see also *Coroplastic ii*, 80).

The overall form of the figurines presented here brings them at the verge between a bell-instrument and a human-representation, as their bodies are not simply hollow or vaguely bell-shaped, but actually evocative of real bells²²⁰ and the parts of the human body are intertwined with the structural elements of the bell, namely the hollow body, the handle and the clapper. Examples of anthropomorphic bells from other cultures, such as the African bell from Zaire seen on Fig. 4.34a, display a similar arrangement of the parts of the bell matching those of the human body. It has been suggested that Cat. 105 (Fig. 4.34a) might actually have a clapper instead of mobile legs, since there is only one perforation placed at the top of the bell and at the side of the figure rather than the customary two holes on each side of the bell-skirt (*Coroplastic iv*, 41). This terracotta could be compared with the considerable amount of clay zoomorphic bells from Cyprus with their top part shaped as a bird, goat or bull, which also have a single perforation for the clapper at the side of their neck (BE.24-33). Furthermore, two anthropomorphic rattle-bells are known from Tomb 79 at Salamis (Fig. 4.34, RA.20), dating to the CA:I period. It is a pair of helmeted warriors wearing a corselet; inside their cast hollow torso they had an oblong clapper resembling the clappers of open bells. The rattling warriors from Salamis are an undeniable proof of the existence of anthropomorphic closed bells concurrent with the latest series of the bell-shaped figurines with mobile legs in Greece and Cyprus.²²¹ The zoomorphic and anthropomorphic Cypriote bells and rattles demonstrate the tendency to animate the instruments, an action that possibly stemmed from the cultic significance and symbolism of these idiophones.²²² Cat. 68, 69 and 70 are hybrids combining bird and human features in an animated bell form. The wings, unnaturally long necks, breasts and enormous feet indicate the daemonic character of these figures with mobile legs; the bell-shaped body may also have been employed precisely in order to emphasize the magical powers/connotations of these figures.

²²⁰ Cat. 57, 58, 59 and 129 have a globular bell-body with slightly inset rim, a feature found in later terracotta bronze bells from Athens (BE.3a). Cat. 141 recalls later hemispherical bells (BE.40e, 48a). The bodies of Cat 62, 63, 64 are paralleled by bells ovoid or rounded rectangle in cross-section (BE.5, 6, 18), whereas Cat. 81 presents the most common shape of a conical bell. Furthermore, Cat. 57, 58, 59, 129 and 141 have underdeveloped or no arms and their schematic neck and head recall knob-handles on terracotta bells from Cyprus (BE.18).

²²¹ See further discussion on rattles and the find context of the rattling soldiers in chapter 4.3.1

²²² For the concepts behind the creation of anthropomorphic instruments in other cultures see Brincard 1989; Kwabena Nketia 1989; Laurenty 1989. Also compare with the theomorphic decoration of Egyptian bells, often bearing the images of Bes, Anubis and their sacred animals (Hickmann 1951).

A group of terracottas from the Aegean and Cyprus dated between the 10th-8th centuries BC preserve the characteristic bell features (bell-shaped body that is comparable to actual bells, knob- or handle-like head and elongated neck) and daemonic appearance that we have discussed, but lack the mobile legs that would make them sound:

- (C)²²³
- 65) **Bell-shaped figure.** Berlin Staatliche Museen Inv. No. 3202a. From Boeotia, unknown context.
 - 66) **Bell-shaped figure.** Berlin Staatliche Museen Inv. No.3201. From Boeotia, unknown context.
 - 67) **Bell-shaped figure.** München Staatliche Antike Sammlungen Inv. No. 5291. Probably from Boeotia, unknown context.
 - 71) **Bell-shaped figure.** Cos Museum Inv. No. 586. From Cos, Serraglio cemetery, Tomb 14.
 - 82) **Bell-shaped figure with upraised arms.** BM Inv. No. 94/11-1/479. From Cyprus, Amathus, Tomb 198
 - 130) **Bell-shaped figurine.** Exc. No. 11961. From Rhodes, Ialysos Necropolis, Tomb LXXI, pithos with infant inhumation.
 - 135) **Bell-shaped figure.** From Samos, Heraion Sanctuary.



Fig. 4.35: EIA bell-shaped figurines. Cat. 65, 66, 67, 71, 82, 130, 135

The elongated neck and the distinctive bell-form are features that appear in cult imagery since the EBA; a comparable example is the so-called “Goddess of Myrtos” holding a jug, which was found at the EM:II bench sanctuary at Myrtos in Crete (Fig. 4.35bis,a). Warren argued that the bell shaped body and the unnaturally elongated neck suggest a divine identity for this image, a goddess possibly protecting the water supply along with arts and crafts,²²⁴ a

²²³ See also a CG:1 example with bell-shaped body, upraised arms and wearing a tiara, described as “Goddess” and connected with earlier Cretan prototypes (*Coroplastic ii*, 58, cat. no. GA(i)1, pl. XXVII:1).

²²⁴ Extensive textile production has been attested at Myrtos (Warren 1972).

prehistoric equivalent of Athena Ergane (Warren 1972, 208, 210).²²⁵ Pragmatic explanations for the bell shape of such figures as alluding to a long garment (Fig. 4.35bis,b) or pregnancy have been proposed and naturally have their merit; however, the recurrence of the bells shape form in connection with non-human representations²²⁶ in the Bronze and Early Iron Age indicates a deeper significance of the bell-form and of the bell imagery, stemming from magical/religious beliefs and connected with the cultic use of concussion and percussion vessel idiophones such as cymbals, rattles gongs and cauldrons.

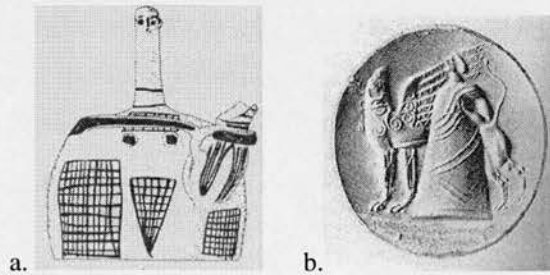


Fig. 4.35bis: a) The “Goddess of Myrtos” (after Warren 1972, fig. 92). b) Bell-shaped figure with griffin (after Boardman 2001, pl. 160).

²²⁵ Similar characteristics are found on a bronze example from Anatolia or Luristan (Rudolph & Calinescu 1988, no. 185). The elongated neck alone also features on some LC terracottas with bottle-shaped hollow body (*Coroplastic ii*, cat. E, pl. XII).

²²⁶ The bell-shaped figure holding an animal and standing next to a griffin on Fig. 4.35bis,b has also been interpreted as a representation of a god (Boardman 2001, 58).

4.3 Idiophones struck indirectly - shaken

4.3.0 Classification and terminology

Shaken idiophones are characterised by a number of parts which are made to collide as a result of fervent movement and produce sound. These parts can be made of any organic hard and sonorous material such as seeds, shells, teeth, bone and pebbles. From the beginning of the Bronze Age non organic materials, such as terracotta and metal, were also used. According to the arrangement of the parts and the overall form of the instrument, shaken idiophones fall within three main varieties:

- a) Parts enclosed in organic, terracotta or metal containers and struck against the container and each other when shaken (vessel rattles, jingles).²²⁷
- b) Parts strung together (suspension rattles) either from a pliant chord (strung rattles) or on a rigid bar or ring (stick rattles, *seistron*).
- c) Parts hung from a frame against which they strike when shaken (pendant and sliding rattles).²²⁸

In most cases a handle is provided to facilitate shaking, unless the instrument is affixed directly onto the body, as is the case with rattling jewellery, jingles and some frame rattles specific to East Africa.²²⁹ Another possibility is to attach the jingling parts to another object, especially on a musical instrument (for instance the ancient and modern tambourine and the ancient Egyptian lute), or a cult object (like the modern incense burners of the Orthodox Church). Certain vessel rattle varieties (like the pellet-form, the spool-form and some animal-form rattles for instance) do not always employ a special hand grip (Reis 1998, 150 fig. 1; Braun 2002, 101 figs. III.18; Rimmer 1969, pl. II.a), but sometimes they can have a suspension hole instead (Hickmann 1954, 115, pl. X:1, 7, 8; Braun 2002, 101 fig. III.19;

²²⁷ Jingles differ from vessel rattles in that they have only one pellet inside, whereas rattles proper contain several grains, pebbles or shells. Jingles are much smaller in size (about 0.05) and in most cases shaped in openwork with a narrow slit or piercing on their wall (Hickmann 1965, 45). For the use of jingles worldwide see *History* 109, 200, 279.

²²⁸ *Hornbostel-Sachs* 15; *Survey* 81 ff. Some scholars classify *seistron* as a sliding rattle [Variation (c)] because the transverse rods from which the jingling parts are hung is actually an integral part of the frame (*NGDMI iii* s.v. “sistrum [crepitaculum, platage]”). Examples of this variation are the African tortoise shell rattles with short iron chains dangling from the carapace which strike on the shell with the dancer’s movement, or the calabash vessel rattle with rattling objects on the outside as well as inside the gourd. See also *DarSag* s.v. “crepitaculum” fig. 2064 for rings attached to the frame of a child’s rattle from a tomb at Vulci.

²²⁹ *Survey* 91; see Hickmann 1965, 63-4 and pl. 2c for jingles attached to the ankles of Nubian folk Egyptian dancers from a temple at Luxor.

Rimmer 1969, pl. II.b). Seistra always have handles and it is only the shape of their frame that presents various forms and ornamentation.

The ancient Greek term that describes shaken idiophones with precision is *σεῖστρον* (*seistron*), deriving from *σεῖω* (to shake). However, this word does not appear in literature before the 1st century BC, and even then it is first encountered in lexicons rather than hymns or poetry.²³⁰ This is surprising considering that shaken idiophones were definitely played in Greece and Cyprus as is revealed by the archaeological record of both the 2nd and 1st millennium BC.²³¹ The term *seistron* is used regularly only in post-classical texts, especially in connection with the cult of Isis-Osiris and the therapeutic and re-generating aspects of their cult (Plutarch *De Iside et Osiride* 376.C.9 ff.; Claudius Aelianus *Soph. Fr.* 121.4-10). In this context it denotes the elaborate, liturgical *seistron* rather than a vessel rattle.²³²

Many scholars eagerly identify *πλαταγή* (*platage*) with the animal-shaped clay rattles often found in children's graves and considered to be toy-rattles, despite the fact that the literary *platage* is only made by wood and bronze.²³³ It should also be noted that *platage* does not overlap with *seistron* in Greek texts. The fact that *krotalon* (κρόταλον) and *platage* (πλαταγή) might also take on the meaning of shaken idiophones has been demonstrated in chapter 4.1.0; it has also been shown that these terms were used in the 1st millennium in order to describe rattles as well as clappers and that their meaning can fluctuate among the various sources and from context to context. We have already discussed the identification of *platage* and *platagonion* (πλαταγώνιον) with a children's wooden toy in connection with the Aristoteleian reference to the instrument invented by Archytas and outlined the problems with regard to its interpretation as a rattle. The bronze rattle found in a child's grave at Olynthus and interpreted as a plaything by the excavator (see RA.25 and similarly RA.15 in Appendix II) may serve as an example for the literary references to bronze *platage* as well as of the playing action of *platagonion* which was held with the left hand and played with the right

²³⁰ Philoxenus Gramm. *Fragmenta* 170; see also Cassius Longinus *Phil. et Fragmenta* 1.6.4 (3rd century AD.).

²³¹ Palatial Crete has produced evidence of *seistron* playing, whereas a great number of vessel rattles have been found in Greek and Cypriote Bronze and Iron Age tombs (see relevant chapters).

²³² This is conjectured by Plutarch's description of the *seistron* decoration with the face of the deity (Isis or Hathor) at the bottom and its associated animal, the cat Bestet, at the top which recalls the Egyptian decoration of the *seistra* (*MiB-Ägypten* 49 fig.25). For the symbolic significance of the elements and the decoration of the *seistron* in the Plutarchean post-classical context see Manniche 1991, 63.

²³³ Buchholz 1966, *West* 126, *GMW i* 176.

(Sch. Equites 830a.2-4). Robinson remarks that the Olynthus rattle could be rolled on the hand or a flat surface (as well as being shaken) in order to produce a noise, since its rattling body could rotate on its yoke (Robinson 1941, 499). But the playing action described by the scholiast also recalls representations of a specifically South Italian type of shaken idiophone with rotating metal rings mounted on transverse rods that are fixed on a square frame, usually referred to as the “Apulian *seistron*”. This instrument is definitely a type of stick rattle ([Variation (b)] like the *seistron*, which can be shaken or have the metal rings rolled with the right hand while held with the left, as often depicted on Apulian vases.²³⁴ Pollux describes a similar instrument under the name *psithyra* (ψιθυρά).²³⁵

Hickmann has suggested that the word σφαῖρα (*sphaira*, meaning “sphere, ball”) might also indicate a vessel pellet-shaped rattle (Hickmann 1954, 123). He based his assumption on a reference by Clemens of Alexandria, who mentions a ball (σφαῖρα) included in the ritual objects of the Dionysian mysteries and initiation rites along with the bullroarer (ρόμβος) and knucklebones.²³⁶ Hickmann maintained that this was “a symbolic ball, one that produced sounds and rhythms” (1965, 53). However, the general use of the word is generally associated with the children’s commonest toy, the ball (Herodotus *Hist.* 1.94.14), or with the planets and the universe in philosophical texts. Homer mentions a purple-red σφαῖρα used by the Phaeakeian youth in what seems to be an acrobatic dance (Od. 8.372-7), and a ball is played by Nausika and her maidens in their dancing-game (Od. 6.100-115).²³⁷ In both cases in the text there are no hints as to whether sound was produced, but Hickmann maintains that in the

²³⁴ The instrument is shaped like a ladder, previously identified as xylophone (Wegner 1949; Keuls 1979). For its identification as a *seistron* see West 126 ff. and Landels 1999, 84 ff. For its performance context in connection with marriage and Aphrodite as seen on Apulian vases see Lepore 1991. The instrument has been associated with bronze objects bearing transverse rods on a frame found in South Italian graves (Frederiksen 1976; Zancani Montuoro 1974-6, 27-42) and with the representation of a similar instrument on an ivory pyxis from Nimrud (Barnett 1957, 78-9, pl. 16-7; Rimmer 1969, 40, pl. VIIb). For a Hellenistic representation of the instrument played by Baubo see *LIMC III.2*, 67, Baubo 2.

²³⁵ Pollux *Onomasticon* 4.60; West 128.

²³⁶ Clemens of Alexandria *Protrepticus* 2.18.1-3, “Καὶ τῆσδε ὑμῖν τῆς τελετῆς τὰ ἀχρεῖα σύμβολα οὐκ ἀχρεῖον εἰς κατάγνωσιν παραθέσθαι· ἀστράγαλος, σφαῖρα, στρόβιλος, μῆλα, ρόμβος, ἔσοπτρον, πόκος”. We have already noted the ball (σφαῖρα) and the knucklebones in connection with the box-wood *platage* in *Anthologia Graeca* (6.309.π1-4). For the plausible use of knucklebones as rattling elements, see Kefalidou 2001, 196 ff. and the discussion on *phormiskoi* below.

²³⁷ For a Laconian dancing game with a ball see also Eustathios Θ376 ff. “Λακεδαιμονίοις ἀγὼν τὰ σφαιρομάχια ... σημείωσαι δὲ καὶ ὅτι ὀρχήσεως εἶδος ἦν καὶ ἡ τοιαύτη διὰ σφαίρας παιδιὰ”. For the connection of the ball-game with leap-dance in Homer see *MusikTanz* 42. For the suggestion that the Hexameter verse “ὃς νῦν ὀρχηστῶν πάντων ἀταλῶτατα παίζη” on the 8th century Dipylon oinochoe might actually refer to a ball-game dance in the manner of the Phaeakeians see Laser 1987, 92.

ritual ball games of antiquity the balls tossed in play (already charged with symbolic significance) were also employed as jingles or rattles intended for rhythmic usage. He corroborated this view with evidence from numerous faience balls of various sizes in the Cairo Museum that contain one or more pellets, which he associated with the bullets depicted on the coiffure of many Egyptian acrobatic dancers that would jingle during performance.²³⁸

Despite the consistent association of the ball-game with dancing, the majority of Greek texts do not explicitly refer to any acoustic properties of the *sphaira*, with the exception of the questionable reading of the verse in *Anthologia Graeca*. As it has been suggested earlier, the plausible reading of “σφαῖραν ἐκρόταλον” (well-sounding sphere) in the reference from the *Anthologia Graeca* (6.309.π1-4) might indicate a vessel rattle, like the Geometric clay spherical rattle known from a grave at Eleusis (Skias 1898) with a single pellet inside; this was found in an adult burial and therefore can not be interpreted as a toy-ball or a baby-rattle (RA. 23). Another reference to “golden balls” (*bullis aureis*) in connection with the jingles that were part of the harness of donkeys suggests that the word *sphaira* may be associated with shaken idiophones in certain contexts (Apuleius, *Metamorphoses* VI, 28; Villing 2002, 280 n.198).

4.3.1 Rattles and jingles

4.3.1.1 Typology

Natural rattles

Rattles and jingles are among the oldest musical instruments found worldwide and belong to Sachs' earliest stratum (*History* 63; Hickmann 1965, 62). They are originally found in nature as seeds rattle inside a dried fruit (vessel rattles), or they can be created involuntarily by the accidental clattering of fruit or other objects bunched together (suspension rattles). In particular, the use of dried gourds in particular as vessel rattles is attested worldwide. The gourd still remains a popular folk instrument in Cyprus, and is used as a signalling device by herdsmen or for accompanying dance and song, sometimes played along with flutes and tambourines (Zarmas 1975, 46). It can have its natural bottle-shape or it is given a round

²³⁸ See Pritchard 1954, figs. 210, 216 and Laser 1987, 93 fig 35 for Egyptian female dancers with bullets on their coiffure, tossing small balls and shaking pellet shaped rattles while dancing. Lead and bronze bullets small enough to be hung from a dancer's hair have been recovered from the necropolis at Olynthus (Robinson 1941, pl. CLXIV nos. 2571-3), and they might offer a parallel to the Egyptian custom.

shape and mounted on a handle (Fig. 4.36a, b). It is not surprising that the initial natural vessel rattles of dried fruit and gourd influenced the form of manmade ones, which were originally of organic material as well. Surviving rattles from Egypt made of plaited straw, reed or papyrus allude to dried fruit on a staff, as they consist of a woven body (with rounded, ovoid or rectangular shape) containing seeds or pebbles, affixed to a solid stick-like handle (Fig. 4.36c).²³⁹ Gourd-shaped rattles made of straw, wood, leather or other natural material are common in many cultures and areas of the world.²⁴⁰ Ancient organic manmade vessel rattles have survived only in Egypt and are late in date, but they must have been common throughout the Bronze and Early Iron Age Eastern Mediterranean.²⁴¹ In modern Greece, on the island of Kos, vessel rattles (or rattle-bells) are still made from tortoise shells with a pebble hung inside from a pliant string (Fig. 4.36d; Anoyanakis 1979, 58).

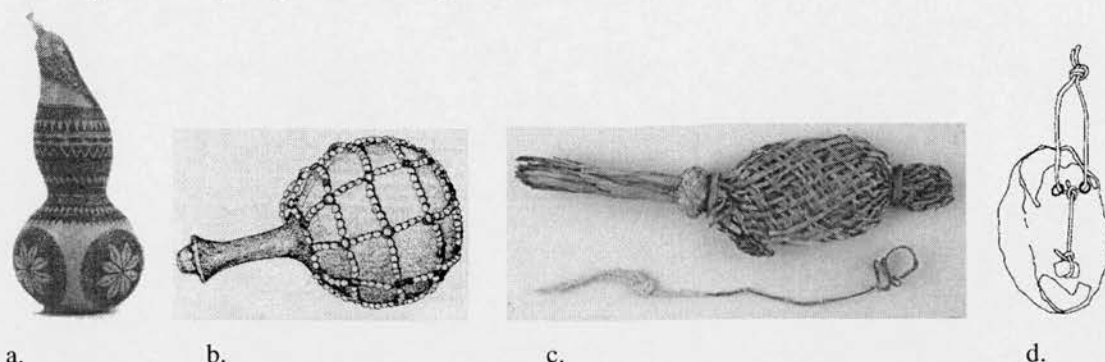


Fig. 4.36: Organic rattles. a) Modern bottle-shaped gourd rattle from Cyprus (after Kefalidou 2001, fig. 4). b) Gourd rattle with handle (after *NGDMI iii*, s.v. “Rattles” fig. 1b). c) Straw rattle from Karanis, Egypt. 2nd-4th century AD. Kelsey Museum (Source: <http://www.umich.edu/~kelseydb/Exhibitions/MIRE/Objects>). d) Modern tortoise-shell rattle from Kos (after Anoyanakis 1979, fig. 21).

Rattling sounds can also be produced by the shaking of branches. Hickmann argued that the origin of the Egyptian *seistron* lies in the earlier shaking of papyrus and lotus branches for the religious rites of Hathor, and the two are often seen together in iconography (Fig. 4.37a; *MiB-Ägypten* 50; Manniche 1991, 63). Manniche’s observation on the discrete quality of the *seistron* sound reflecting the subtle rustling of branches can be equally applied to the other types of rattles, especially those made of clay and organic material that lack the tingling sonority of metal. The pictorial motif of dancers holding branches is a *topos* in Aegean iconography of the Bronze and especially of the Early Iron Age. Stylized branches are shown in the hands of male and female dancers on EIA vase paintings from Greece and Cyprus, held

²³⁹ Hickmann 1954, pl. XI:1-5 for examples from Cairo Museum.

²⁴⁰ See *Survey* 84-5 for leather and wooden American Indian rattles; *NGDMI iii*, s.v. “Rattle” and relevant entries; ²*MGG viii*, s.v. “Rasseln”.

²⁴¹ In the 2nd century AD. Pseudo-Plutarch refers to a kind of herb called *σεῖστρον* because it contains seeds that shake and rattle, just like the musical instrument (*De fluviis* 13.2.1-5).

upwards or downwards, a fact that indicates that they were actually shaken and waved, hence their sound rhythmically accompanied the dance movements (Fig. 4.37b, c). From the 6th century BC specially made thyrsos replace the common branches in the hands of the dancers; they are seen especially in the dance iconography of maenads and satyrs or can be held by Dionysos himself.²⁴²

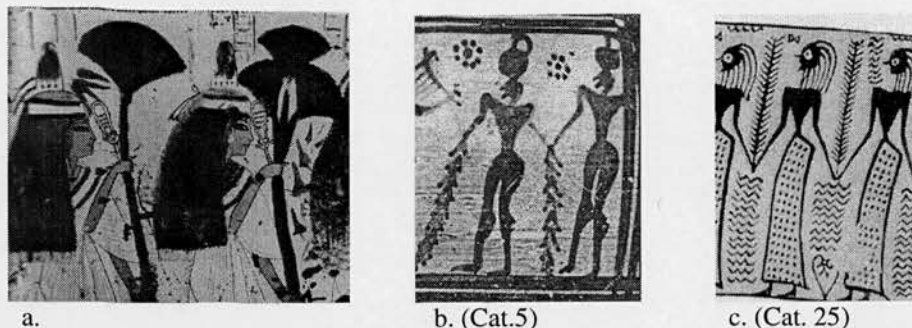


Figure 4.37: Shaking branches. a) Papyrus branches shaken along with *seistra*. Theban Necropolis, New Kingdom (after *MiB-Ägypten* fig.26). b) Pot balancing and branch rustling (down movement), part of festival scene depicted on Kantharos Copenhagen (Cat. 5). c) Female dancers with branches held upwards. Analatos hydria (Cat. 25).

Terracotta rattles

The earliest terracotta vessel rattles are egg-shaped; they come from Lower Egypt (Merimde culture) and date to the 5th millennium BC (Braun 1997, 72). Clay rattles are very common worldwide. The numerous Bronze and Iron Age examples found in Egypt, the Levant and the Near East have been classified according to their shape as follows:

- simple pellets and pellets with handle;²⁴³
- spool-shaped²⁴⁴
- fruit-shaped (lemon, gourd, other) with handle or suspension hole²⁴⁵
- “pie crust” with suspension hole²⁴⁶

²⁴² See *DarSag* s.v. “thyrsus”; also Aristophanes *Lyistrata* 1305-1315 for Spartan choruses with thyrsos (discussed by Constantinidou 1998, 15-6).

²⁴³ From Egypt, Sumer and the greater Hindus area. Sometimes circular piercings on the wall of the pellet rattles aid resonance, but sometimes small circles are partially pierced, maybe in an attempt to imitate the porous surface of fruits. Other pellet rattles are decorated with stamped circles and painted or incised concentric circles (Reis 1988, 211 ff., fig.3; 1998, 144, Table 1, figs. 1-3; Hickmann 1954, 79 fig. 3-4, pl. X: 9).

²⁴⁴ Mainly from Israel/Palestine, where it is the most common local rattle shape (Sellers 1941, 47 fig. 13; Braun 2002, 106, pl. III.20).

²⁴⁵ A widespread type, basically an adaptation of the simple pellet shape in imitation of the organic rattles in clay. Found in Egypt, Palestine and the Near East (Braun 2002, 104, fig. III.24; Hickmann 1954, pl. XX:7-8, 10).

²⁴⁶ Mainly from the Near East (Rimmer 1969, pl. IIIb; Reis 1998, fig. 2c).

- animal shaped or zoomorphic (hens, bears, birds, pigs, camels, other) with handle or suspension hole²⁴⁷
- anthropomorphic²⁴⁸

All clay rattles that have been found in Greece and Cyprus are vessel rattles [Variation (a)] and follow the general typology of Near East and Mediterranean rattles, with local variations and preferences.²⁴⁹ Representative Greek and Cypriote examples are collected in Appendix II-Rattles. For the Aegean and Cypriote examples of the Bronze and Iron Age I suggest the following typology:

- (a) spherical/coniform-shaped without handle (RA.23)
- (b) spool-shaped (RA.18)
- (c) lentoid with handle (RA.24)
- (d) *phormiskos*-shaped with handle (RA. 7, 8, 11, 12, 13, 14, 19, 27, 28)
- (e) zoomorphic (awl, horse, bird, pig, dog, hedgehog, bear) (RA.3, 4, 6, 16, 17, 22)
- (f) fruit-shaped (RA.1, 2, 21 [pomegranate]; 9, 10 [ovoid, gourd?])
- (g) anthropomorphic (RA.5).

The earliest archaeological evidence comes from Cyprus, where a considerable corpus of awl-shaped rattles [Type (e)] have been deposited mainly in Middle and Late Cypriote graves (RA.16). The general concept is similar to the Anatolian and Palestinian anthropomorphic and zoomorphic rattles with a globular body, narrow neck, animal/human head and a looped handle from head to shoulder that we have mentioned. However, the awl-shaped type must be local Cypriote, as no other specimens have been found outside Cyprus, with the exception of a few examples from the neighbouring Palestinian coast.²⁵⁰ Buchholz notes that Cypriote awl-shaped rattles with a known archaeological context never come from children's burials and

²⁴⁷ The rattle can have the overall shape of an animal in Egypt and the Near East (Hickmann 1954, pl. XX:3-6; Rimmer 1969, pl. IIIa; *MiB-Mesopotamien* for bird-shaper rattles with staff). In Palestine it retains a simple spherical or pear-shaped body with modelling of the tip in the form of an animal muzzle (Braun 2002, 102-3, pl. III.21, 23).

²⁴⁸ These are Phoenician and Anatolian. The Anatolian examples, dated to the 3rd millennium BC, have a human-like head on a spherical pellet rattle-like body with a handgrip running from the head to the middle of the body (Bachmann 2000, 148 n. 13, fig. 4: 3, 4). One Bronze Age Phoenician example gives emphasis to the female figure, with breasts attached on the ovoid body of the rattle; on another instance a small spool-like rattle is attached to the top of the hollow head of a three-horned daemonic figure (Braun 2002, 103 pl. III.22 and 26). For examples from Ilion see Buchholz 1990, 49 n. 56.

²⁴⁹ For an extensive bibliography on published rattles from Europe, Aegean and the Near East see Buchholz 1987, 100 ff.

²⁵⁰ Of the 56 awl-shaped rattles that have been recorded so far, 20 come from excavated Middle/Late Cypriote sites, (Enkomi, Agastina, Dekeleia, Pyla, Hala Sultan Tekke, Maroni, Idalion, Nicosia,

that their weight and thickness indicate that they were used by adults in religious occasions, shamanistic dances and magical procedures (he suggests rain making); the daemonic nature of the awl corroborates this view (Buchholz 1990, 35). On the other hand, the LC:II-III horse-shaped rattle from Kazaphani tomb (RA.17) is unparalleled and it is more likely to be a momentary inspiration for a toy, probably prompted by the fact that jingles and bells were often hung from the necks of animals and especially horses (see previous chapter 4.2.2).

Zoomorphic rattles [Type (e)] are not found in Mainland Greece prior to the Archaic period; an example from Rhitsóna is shaped as a dove resting on a stem or splayed base that would also aid hand grip (RA.6). Bird rattles with this feature are known from the Old Babylonian period (early 2nd millennium BC) and it appears that the Greek artefacts follow a well established prototype.²⁵¹ Similarly shaped bird rattles from Roman burials or well deposits in the Athenian Agora (RA.4) suggest that their manufacture may have continued throughout the Classical and Hellenistic periods.²⁵² A great variety of rattles in the shape of cocks, dogs and bears has survived from the Roman period; they are interpreted as infants' toys and are usually associated with child burials.²⁵³ There is also a Hellenistic example of a hedgehog carrying fruit (RA.3) and seventeen Cypriote Hellenistic examples of pig-rattles (RA.22) continuing into the Roman period (four Roman examples) (Buchholz 1966). The find context of some pig-rattles indicates that they too were probably toys,²⁵⁴ but Buchholz has drawn attention to the religious significance of this particular mammal (Buchholz 1966, 151), suggesting cultic associations for the use of these animal rattles. His view may be supported by the significance of the pig in Greek fertility/regeneration rituals, demonstrated by the throwing of pigs into sacred caverns during the Eleusinian Mysteries and encapsulated in the mythical killing of Adonis by a boar; the pig is also sacred in the Syrian and Phrygian worship of Attis and in the Egyptian cult of Osiris, where it is sacrificed annually. In all these cases the pig embodies the god himself; as a consequence, it becomes a symbol of strength in magic and a means of divination in ritual (Frazer 1949, 31, 347, 471 ff.).²⁵⁵ The example of the profound religious aspects of the pig and, in analogy, of the pig rattle, suggest that the act of

Kazaphani and Morphou), 31 from various museum collections and only 6 have been found in Palestine (Gezer, Lachisch and Tell-el-Hesi), often along with other artefacts from Cyprus (Buchholz 1990).

²⁵¹ *MiB-Mesopotamien* 98, fig. 99, 100; Rimmer 1969, 48, pl. IIIa.

²⁵² See *Agora VI*, 68-69 nos. 826, 835, 846, 854.

²⁵³ See *Agora VI* nos. 726, 750 (dogs) and no. 791 (bear, from the same burial as cock-rattle RA.4b).

²⁵⁴ Buchholz 1966, nos. 3 and 4 found in a child burial in Salamis, and no. 13 from Trikomo found with a feeding bottle (148 fig. 8).

²⁵⁵ For iconographic evidence of the connection between the boar and rattle playing in ritual see chapter 4.3.1.2. The connection is further indicated by a Late Hellenistic terracotta, now in Berlin, depicting Baubo of the Eleusinian Mysteries in child-bearing pose, carried by a pig and playing an Apulian *seistrón* (*LIMC III.2*, 67, Baubo 2).

their deposition of animal rattles in child burials may not be devoid of religious connotations, and that they may not have been mere toys.

There is only one example of a spool-shaped rattle [Type (b)] from Cyprus, dated in LC:IIIC, and it could actually be an import from the neighbouring Phoenician coast that produces such rattles during the same period.

Rattles in the shape of a pomegranate [Type (f)], with a geometrized coniform or more naturalistic body shape, are known from both Greece and Cyprus. The Cypriote example RA.21 is unprovenanced, but the Greek examples come from Geometric graves, and the adoption of the pomegranate shape is totally relevant. The fruit was thought to have sprung from the blood of the slain Dionysos (Frazer 1949, 389) and it is therefore a symbol of regeneration, life and death. RA.2 has a suspension hole, but a staff could be attached on RA.1 so that one could hold and shake it, like RA.21. There is a great number of similar terracottas that lack the rattling pellets inside and most probably they are fruit models conveying the symbolic significance of the pomegranate, rather than instrument models.²⁵⁶

Greek Type (a) is a more tectonic adaptation of the archetypal primitive pellet rattle without handle; the unique Eleusinian specimen RA.23 has a suspension or vent hole marked with a cross at the top. The other archetype of a circular rattling body with a straight handle or staff is expressed on the lentoid rattle from Eleusis RA.24 [Type (c)]; in fact, the lentoid or disc-shaped sounding body might allude to similar rattles in wood or even metal (see RA.15 and 25 for instance). Types (a) and (c) are attested once in the Greek archaeological record and are found together in the grave of a 25 year-old adult, which indicates that these rattles were not toys. The fact that this grave was near the so-called "Isis grave" that is thought to have been the burial place of a priestess of Demeter in Eleusis, might bear some significance for our understanding of the two rattles, as they might have been ceremonial instruments used by her in the Eleusinian mysteries, where the ample use of idiophones has already been noted.²⁵⁷

The commonest Greek type of rattle from the classical period acquires a shape similar to the Egyptian plaited straw rattles with distaff, but is made of clay [Type (d)]. It is usually

²⁵⁶ See references in Buccholz 1987, 101 n. 506. For a typology of the mainland Greek pomegranate terracottas see Kourou 1987.

²⁵⁷ The faience beads on the hair of the deceased could also be compared with the rattling coiffure adornment of the Egyptian dancers noted by Hickmann and discussed earlier (see context of RA.23 and 24).

described as φορμίσκος (*phormiskos*), a derivative of the term “φορμός” which indicates basketry or plaited objects and carriers in general.²⁵⁸ It is probable that the clay *phormiskos*-shaped rattles are ambitious adaptations of similar woven rattles made of organic material. They are often found in pairs in funerary contexts, like the pair of *phormiskos*-shaped rattles from a 6th century burial at Thera (RA.28), a fact suggesting that they might also be played in pairs. Their handles have small perforations, and often end in a pointed tip which recalls natural shapes such as that of the gourd, and it can be observed in gourd-rattles of other cultures (see above Fig. 4.36b). A great number of terracotta *phormiskoi*, objects closed and hollow inside with a small perforation at the tip of the handle, have been excavated in Greek and Italian graves.²⁵⁹ Some examples contain rattling elements inside, in which case they are classified as *phormiskos*-shaped rattles (Brocato & Buda 1996, Tables 2 and 4). Others are empty or fragmentary, a fact that led some scholars to consider *phormiskoi* as closed vases comparable to aryballoi and lekythoi.²⁶⁰ It should be noted that the earliest rattling *phormiskoi* come from S. Italian 8th century BC burial contexts whereas so far no Greek examples have been identified prior to the mid-6th century.²⁶¹ If the CyproGeometric “bottle-shaped” rattle from Skouriotissa (RA.19) is indeed *phormiskos*-shaped rather than lentoid shaped [Type (c)], then this would be the only archaeological evidence for such rattles in the Eastern Mediterranean prior the 6th century BC.

Some S. Italian non-rattling *phormiskoi* have a side opening and bear an astragalos ornament in relief; it has been suggested that these might have actually been used as containers (pouches) for astragaloi. In fact, both astragaloi and *phormiskoi* are often found together in graves and especially burials of children or adolescents. Astragaloi are common games of the youth, but also have magical connotations, as the casting of knucklebones was oracular and served as tool of divination (Laser 1987, 117 ff.; Neils 1992, 96). It is possible that the *phormiskos*-shaped rattles are not clay adaptations of the natural gourd-rattle as would be suggested by their shape, but of astragalos pouches which would also rattle, as observed by Kefalidou 2001. The connection with the astragaloi, and the fact that they are found in adult

²⁵⁸ Pollux *Onomasticon* 7, 173; *Suda* phi 608 “Φορμός: προκάλυμμα· ἡ πλεκτὸν ἀγγεῖον ἐκ φλοιοῦ, ἐν ᾧ εἰώθεσαν ἰσχάδες κομίζεσθαι”; see also Brocato & Buda 1996.

²⁵⁹ Greek rattling *phormiskoi* are gathered in Appendix II-Rattles. See Brocato & Buda 1996 and Kefalidou 2001 for the most updated catalogue of *phormiskoi* in general, with detailed bibliography.

²⁶⁰ See for instance Verdelis 1963, 39 no. 6 for a Geometric example from Tiryns described as lekythos, and Brommer 1959 who interprets *phormiskoi* as sprinklers; the latter view is not supported by the form and manufacture of *phormiskoi* (Kefalidou 2001).

²⁶¹ According to Kefalidou 2001, the 8th century intact example from Tiryns does not have a pellet inside.

graves (RA.7) and Polyandreia (RA.14) is corroborative of a funerary cult/magical use of the phormiskos rattles.²⁶² A detailed contextual analysis of the Greek phormiskos-rattle might offer further clues regarding their symbolism and significance, but this task is beyond the scope of the present study.

Phormiskoi representations are depicted in association with the deceased on lekythoi, and the few examples of *phormiskoi* with figurative decoration portray scenes of funerary character, which is understandable if they were manufactured for the specific purpose of being burial offerings.²⁶³ These particular examples lack the rattling pellets inside, and so their importance (hence their figurative decoration) and symbolic value must lie in their distinctive shape, alluding to the associated objects: either the astragalos pouch with its rattling sound, or the similarly shaped gourd and straw rattle. It is notable that some examples of *phormiskoi* are solid, that is, mere models of the real thing, while others are miniatures and could have been used as pendant amulets.²⁶⁴

Anthropomorphic clay rattles [Type (g)] are not attested in Greece before the Roman period, but their absence may be counterbalanced by the abundance of bell-shaped idols. A toy-rattle in the shape of a crouching black boy was found in an infant's sarcophagus in Corinth dated to the 3rd century AD (Shear 1930, 429 fig. 19). In contrast, the anthropomorphic rattle from Athens with a pointed headdress or hood (RA.5) was not found in a child burial but inside a rectangular construction with an altar that has been interpreted as the peribolos of an open air shrine. Similar rattles are known from the Athenian Agora of the Roman period (RA.5a; *Agora VI*, 51 no. 282 and similar nos. 283-306, although some of them fragmentary). The figure of a child wearing a pointed hood has been associated with the hooded daemon Genius Cucullatus (Parlama & Stampolidis 2000, 62), a fact that again stresses the magical powers of the rattle rather than its use as a toy.

²⁶² Brocato & Buda note that the rattle from the Polyandreion at Thespieae was used during the ceremony of the burial, as it was found near the levels of the pyre. They also suggest that *phormiskos*-shaped rattles are instruments connected with children and female adolescents, as the majority of the Italian specimens come from female graves. They propose that their rhythmic sound was appropriate for the accompaniment of initiation rites marking the young maidens' marriage age, after which the *phormiskoi* could be dedicated to the deity along with other games/symbols of youth (see reference in *Anthologia Graeca* above, and *Anthologia Palatina VI*, 280); otherwise, they accompanied the virgin maidens or children to their grave (Brocato & Buda 1996, 86 ff.). For a similar view connecting terracotta and basketry rattles with women see *History* 28.

²⁶³ For figurative scenes on *phormiskoi* see Touchefeu-Meynier 1972; Hampe 1976; Neils 1992.

²⁶⁴ See for instance the 6th century solid *phormiskos* from Perachora (Kefalidou 2001, 188 n. 19; Payne & Dunbabin 1962, 101-2 no. 324, pl. 115); also miniature *phormiskoi* in Hampe 1976, fig.4 left.

Bronze rattles

The production of bronze vessel rattles since the middle of the 3rd millennium BC indicates the symbolic value of the instrument and the importance given to the acoustics of rattling, ranging from the subtle noise emitted from organic materials and clay to the sharp and resonant metallic sound. Bronze pellet rattles have a wide distribution in Sumer, Mesopotamia and the Caucasus area ; the view, however, of their strictly Caucasian origin has been challenged (Muscarella 1988, 274 n. 2). Most examples have a geometric coniform, round or oval shape, but sometimes they are cast in the form of a fruit, like a pomegranate or a fig (Muscarella 1988, 67 nos. 99-101, 274 nos. 369, 371). They can have one or more pellets rattling inside (the single-pelleted ones should be classified as jingles according to Hickmann's definition). Their wall is fashioned in openwork, pierced usually with triangles arranged in two zones on each side of the grooved or ridged centre (many examples in Muscarella 1988, 67 ff.; Reis 1998, fig. 2a). The openwork possibly recalls the pierced walls of the less elaborate pellet clay rattles and it might aid the acoustic effect. The fact that all openwork bronze rattles have suspension loops at the top suggests that they were pendants, and this is verified by recorded examples attached to a chain (Muscarella 1988, 274 no. 369).²⁶⁵ Many examples have suspension loops or holes at both ends of the body, suggesting that these were firmly tied on a garment or worn as body ornament, following the idea of rattling jewellery that we have already noted. One of the earliest examples of this type was found in the Barbar Temple on the Persian Gulf, and is thought to have been a priestly artefact or to have belonged to an individual of high social status (Fig. 4.38a; Reis 1998, 127).²⁶⁶ Bronze pellet openwork rattles of the early 1st millennium BC (9th-7th centuries) have the additional feature of surmounted birds or animal protomes on the side or above the suspension loop (Fig. 4.38b; Muscarella 1988, 276 ff. nos. 372-381; Bouzek 1971). Such rattles are absent from the archaeological record of Bronze and Iron Age Syria, Phoenicia and Cyprus. They are found in east-central Europe in the 8th century BC where they were not personal ornaments but parts of the horse-trapping (Bouzek 1971, 84 ff. ["Thraco-Cimmerian" cages],

²⁶⁵ Scholars often describe these objects as openwork "rattle-bells", because both artefacts are clearly related as they have analogous basic structure and usage. A similar type of openwork is applied on some bronze bells from these areas, and in some cases the bronze openwork rattle takes on the conical shape of a bell (Rimmer 1969, pl. XIXc). There is evidence that "rattle-bells" were suspended from the necks of horses just like bells (Muscarella 1988, 68; Bouzek 1971, 86). In general, bells and "rattle-bells" share the same structural and symbolic concepts.

²⁶⁶ The use of bronze rattles by high members of the social hierarchy is also suggested by their deposition in Sumerian royal graves at Ur and plundered (hitherto rich) Mesopotamian graves at Tepe Giyan; see *MiB-Mesopotamien* 98; Reis 1998, 126. Muscarella 1988, 273 is sceptical about the dating of these artefacts to the early 2nd millennium and proposes a date in the 1st millennium.

esp. 86 fig. 12: 2-4). In Greece they have influenced the shaping of a type of pendants that may have operated as suspension rattles (discussed below).

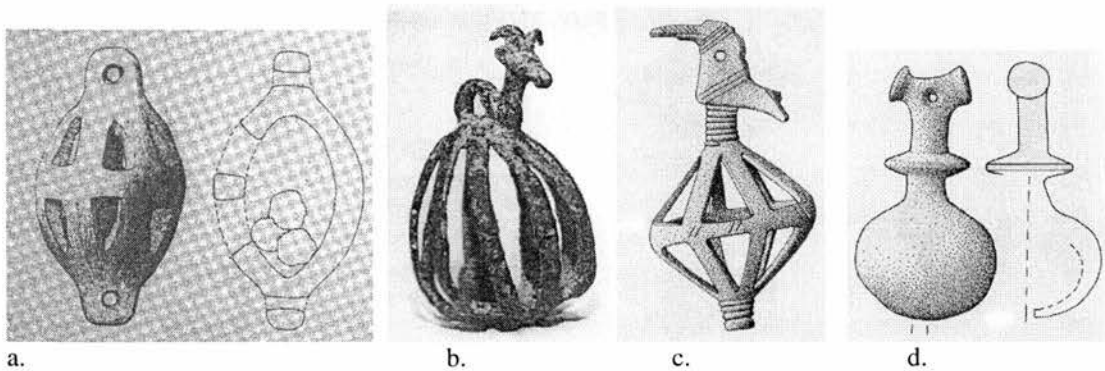


Fig. 4.38: Bronze openwork rattles, jingles and rattle-shaped pendants. a) Openwork rattle from Barbar Temple, ca. 2700 BC, with two suspension holes (after Reis 1998, fig. 2a). b) Openwork jingle (one pellet) with animal protome from north of Luristan. 8th-7th century BC. *MMNY* Inv. Io. 1978.514.19 (after Muscarella 1988, no. 374). c) EIA openwork cage pendant (lacking pellet) with bird protome from the Athenian Acropolis (after Kilian-Dirlmeier 1979, pl. 33 no. 644). d) Hollow closed pendant (from Chalkidiki?), possibly a jingle. Benaki Museum, Inv. No. 7883 (after Kilian-Dirlmeier 1979, pl. 22:387).

Apart from the rattles, there are also numerous examples of bronze (and a few terracotta) jingles from Pharaonic Egypt (Hickmann 1965). These are spherical, ovoid or shell-shaped, with a simple suspension loop and a narrow slit or small pierced hole on their otherwise closed body. A triangular variety is also found on a couple of Egyptian and Syro-Palestinian iconographic representations (Hickmann 1965, pl.2:c; Grace 1956, 80 fig.2). Jingles were primarily used as pendants, formed part of dancers' necklaces or worn at their ankles, were hang from the necks of animals or attached on garments and musical instruments (for a Roman example see *DarSag* s.v. "tintinnabulum", fig.6992). The bronze rattles that have been found in Greece and Cyprus belong to Variations (a) and (b) (vessel and suspension rattles); I propose the following typology, according to their shape:

- (h) spherical vessel rattle/jingle (RA.26)
- (i) suspension rattle (belt pendants, rattling jewellery)
- (j) anthropomorphic vessel rattle (RA.20)
- (k) disc-shaped rolling vessel rattle with handle (RA.15, 25)

Only one bronze rattle/jingle [Type (h)] in Greek soil is reported by Kilian-Dirlmeier in her valuable study of Greek Mycenaean and EIA bronze pendants (RA.26).²⁶⁷ It is classified by her under the family of “closed spherical pendants” (*geschlossene Bommeln*) and was found in a Northern Greek grave (site Hagios Panteleimon). Kilian-Dirlmeier describes the pendant as rattle without justifying her assumption or mentioning the number of pellets inside. In the absence of a drawing or illustration, we can deduce its form through analogy with the other pendants of this group, which have a spherical body and a long stem pierced for suspension (see Kilian-Dirlmeier 1979, 62-63, pl. 22, 23). Kilian-Dirlmeier maintains that a similar hollow spherical pendant presumably from a grave at Chalkidike (Fig. 4.38d) is also a rattle-pendant (Kilian-Dirlmeier 1979, 62 no.387), based on the comparison with the rattle-pendant RA.26. If this identification is correct, and given the small size of the objects (0.061 and 0.056 for the height of RA.26 and Kilian-Dirlmeier’s no.387 respectively), it appears that “jingle” (with just one pellet inside) would be a more appropriate characterization, although the usual slit is lacking. No further Greek jingles have been reported.

Variations of the Near Eastern openwork bronze rattles (or “rattle bells”) that we have discussed have been found in east and central Europe, Skythia, the western Balkans, Italy and Greece dating to the EIA.²⁶⁸ In Greece and the Balkans they come from sanctuaries and graves where they were deposited as offerings between the 8th and 6th centuries BC. They are usually described as openwork “bird-cage” pendants (Bouzek 1971; 1974; 1997). The large numbers found in Thessaly, Macedonia and the Balkans suggests Northern Greek/Balkan manufacture.²⁶⁹ Although they retain the overall shape of the Near Eastern bronze rattles, all the examples from Greek and Balkan sites lack the pellet inside and therefore cannot be interpreted as vessel rattles or jingles (Fig. 4.38c).²⁷⁰ Nevertheless, the interconnection between the two types of artefacts is evident, and it must have been the prophylactic powers and symbolic value of the bronze rattles that triggered the production of the pelletless series; of “bird-cage” bronzes. The Aegean examples have only one suspension loop, often mounted

²⁶⁷ A very small golden nut-shaped rattling pin-head (Ht.: 0.02, Diam.: 0.009) is also reported from a princely child burial at Mycenae Burial Circle B (Tomb Ξ) dated at 1650-1600 BC (Mylonas 1973, 178, 184 no. 405, pl.159a).

²⁶⁸ In Greece, they are found mainly in Macedonia (Olynthus, Chalkidike, Aiante and others) and Thessaly (Pherai, Philia and others); a substantial number comes from Delphi, Olympia and Ithaka, whereas only a few examples were found in Attica, Tegea, and Leukada (Kilian-Dirlmeier 1979).

²⁶⁹ Bouzek advocates “Thraco-Cimmerian” inspiration for the “Graeco-Macedonian” openwork bronzes, but he adds that the Greek form also incorporated local tradition (Bouzek 1971, 94).

²⁷⁰ Pelletless openwork cage pendants rarely occur outside the Aegean, but they are not unattested; see examples in Muscarella 1988, 277 no. 375 with bird and 279 nos. 380-1 with horned-animal protome from Iran.

on an elongated stem rather than attached directly onto the body. Occasionally animals (bird and horse) and human figures are placed on top of the openwork, which are pierced for suspension or replace the suspension loop altogether.²⁷¹

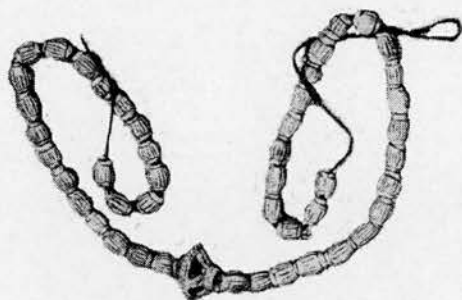


Fig. 4.39: Necklace from Rhodes, Ialysos Tomb 28 (after Benzi 1992, pl. 119h).

According to Kilian-Dirlmeier, the EIA Aegean “cage-pendants” were worn in the middle of a necklace (Kilian-Dirlmeier 1971, 80). An earlier example from Rhodes, made of faience, confirms this view (Fig. 4.39); the necklace was found in Tomb 28 at Ialysos, and is dated to the LH:IIIA2 period (Benzi 1992, 198 no. 3552, Type 22c:2), indicating that the type found its way to the Aegean in the later phase of the Mycenaean period. These pendants do not have acoustic properties in themselves, but they must have been symbolically charged, alluding to the openwork rattle-bells. Nevertheless, in some instances many such pendants have been found together strung from a ring and possibly functioned as suspension rattles [Variation (b), Type (i)]. We have a few moderate examples of this type from Axioupolis and more elaborate ones from the Balkans (Fig. 4.40 a and b respectively). Suspension rattles of this type are given a variety of forms that may or may not retain the openwork cage shape. An example from Perachora has the pyramid shape of a two-dimensional bell with four holes at the rim for the suspension of pendant rings that would rattle once the artefact was hang from its top loop (Fig. 4.40c).²⁷² It is not entirely certain how these pendants were worn, but from a grave context at Oliveta Citra it appears that they were breast pendants. Such breast pendants are represented on Archaic Boeotian terracotta figurines (Kilian-Dirlmeier 1979, 209; Szabó 1994, fig. 115); breast pins with rattling pendants in various forms (discs, chains etc.) are also known and are sometimes depicted on art, as for instance on the François vase, where they are worn by one of the Moirai on her chest (Jacobsthal 1956, 106 fig. 331).

²⁷¹ For a detailed typology based on the differences in body-shape and modelling of the various parts of the artefacts see Kilian 1979, 50 ff and pl. 111.

²⁷² A rattle pendant from Europe (site Plonéour-Lanvern, Finistère) in the form of three intersected rings with a small disc hanging from each ring and suspension loops on the lateral rings dated to 850-700 BC recalls the rings on the pendant from Perachora. The European example was attached to the

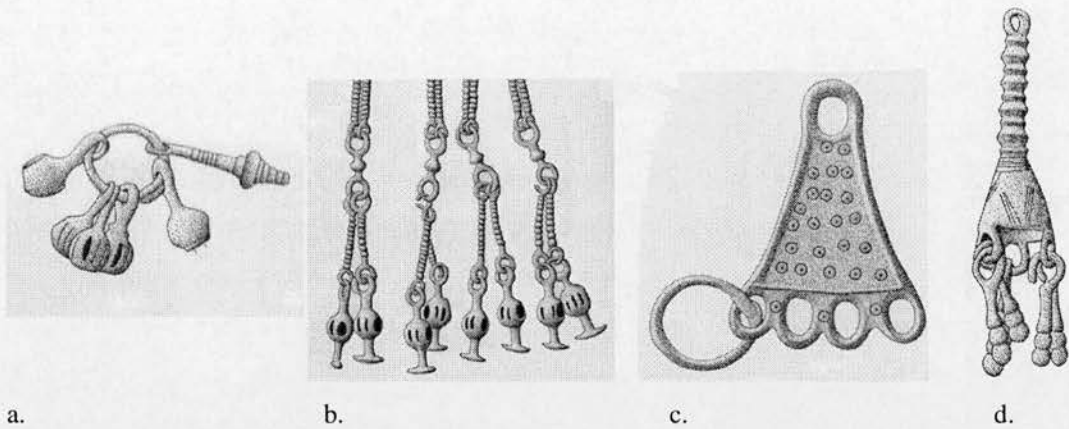


Fig. 4.40: Suspension rattles: a) From Axioupolis, with openwork pendants on a ring. b) From Mati Bezirk with openwork pendants on extremely long chains hanging from an elaborate looped frame. c) From Perachora, pyramid-shaped with pendant rings. d) From Axioupolis, bell-shaped with pendant stems, found in the middle of Tomb 2 along with five similar pendants and two “jug-stoppers” (after Kilian-Dirlmeier 1979, 74:1311, 74:1310, 73:1306 and 19:284 respectively).

Another type of suspension rattle well attested in Northern Greece retains the overall form of a three-dimensional bell (without clapper) with stems hung from rings at its rim (Fig. 4.40d). These bell-shaped pendants are associated with exclusively female burials and their congregation and distribution in the grave indicates that many such pendants were apparently hung from a belt or girdle worn around the pelvis area of the deceased (Kilian-Dirlmeier 1979, 46). Unless this is strictly a burial custom of dedication at the funeral or of adornment of the deceased, the pendants would rattle with the person’s common everyday movements. In some cases single items are deposited in sanctuaries (examples from Pherai-Sanctuary of Artemis Enodia, and Perachora-Sanctuary of Hera Limenia).

The rattling sound has been considered magical and apotropaic worldwide since the early history of man. Prehistoric jewellery made of shell or bone pieces strung together produced rattling sounds, a fact that constituted a great part of their appeal.²⁷³ According to Sachs “the strung rattle must be considered a sounding amulet” (*History* 26). Certain pendants or bead shapes would make sound production easier. The experience of the tingling sound of jewellery has no chronological limits, and “rattling” necklaces, earrings or other ornaments are produced in all periods and civilisations of the Mediterranean, with pendants in various forms

harness of a horse (L’Helgouach 1988, no. 12.01.04) but similar intersected rings are mounted on pins (Jacobsthal 1956, nos. 340-2).

²⁷³ See for instance the strung rattle made of fox teeth from the Natufian Hayonim Cave in Israel/Palestine (Braun 2002, 51, fig. II.1), the rattling necklace of solid shell beads from Late Neolithic Dikili Tash or the sound effective wide rings of patellae shell from EC:II-EC:III Phylacopi, strung together after the molluscs were consumed (Karali 1999, 111-2, figs. 23b and 24). The custom is not confined to the Mediterranean; for a rattling nut-shell belt from S. America see *NGDMI iii*, s.v. “Rattle”, 196, fig. 1: f and *History* 27, fig. 1.

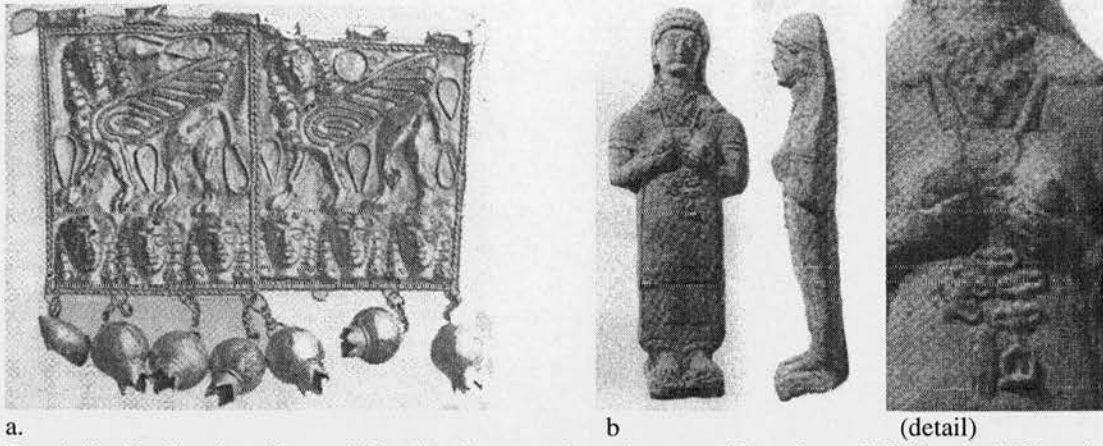
such as multiple stems, pomegranates, triangles and others (examples in Higgins 1961; Jacobsthal 1956, nos. 472, 544, 642; Porada 1967). Beautification as well as demonstration of rank and wealth was definitely an important role that jewellery played, but on many occasions the symbolic associations of the pendants (as in the case of bell and pomegranate shaped ones) combined with the prophylactic sound of metal (bronze or gold) was equally important, if not the primary reason for wearing the piece of jewellery.²⁷⁴ In Greece this notion is exemplified in the Orientalising Period by a series of golden Rhodian pendant plaques destined to decorate the bust, which had pomegranates or simple pellets suspended from their rims and able to rattle (Fig. 4.41a). The plaques were also embossed with a religious theme or daemon (Sphinx, Mistress of Animals, “Female in the window” etc.; Laffineur 1978, 78 ff.).

Jewellery is usually not manufactured with the specific purpose to produce sound and therefore we cannot classify rattling pendants as musical instruments in the strict sense of the word. However their sound effects should be noted and borne in mind, as they eventually substitute for specifically designed sounding devices such as bells, rattles and jingles, which were worn or attached to the garments of priests, children, outstanding individuals (heroes) and even demonic creatures, due to their apotropaic powers (Hickmann 1965, 63; Blades 1984; *History* 109, 200, 279).²⁷⁵ Therefore, the acoustic properties of certain jewels may not be coincidental after all. An example of rattling jewellery that apparently had prophylactic function can be seen on an Archaic terracotta from Cyprus, now in Queensland, Abbey Museum (Inv. No. AM CY46). Here, multiple strung and suspended pieces are worn by a full frontal standing female figure on a plinth with hands cupping her breasts in the manner of “Great Mother” representations (Fig. 4.41b), probably representing a priestess, if not the divinity herself (Webb 1986, 25 no.46). The archaeological context of the figurine is not known, but terracottas of this type are associated with the so-called Sanctuary of Artemis at Achna.²⁷⁶

²⁷⁴ The apotropaic qualities and prophylactic sound of a jewel with pendant pomegranates and bells from the Parthian period must have been the primary reason for its manufacture, as it is thought to have been worn by a priest (Porada 1967). Compare the Parthian jewel to the Rhodian “pendants de temps” with multiple pomegranates hung from chains from each side of a central panel (Laffineur 1978, 127 ff., nos. 198-9, pls. XXIII:1, 3).

²⁷⁵ See *Exodus* 28, 35 for jingles on priestly robes and *Quaestiones convivales* 704.D.1 for similar jingles or bells on the garment of a priest of Dionysus; *Survey* 81 ff. for similar use of pellet-bells worldwide.

²⁷⁶ See numerous similar examples from Achna in *Coroplastic vB*, 48 ff., pls. XI-XV, thought to represent priestesses of Artemis-Kybele. In *LIMC II.2*, 14, Aphrodite 107, 108 similar limestone statuettes are identified with Aphrodite.



a.
Fig. 4.41: Rattling jewellery. a) Rhodian bust pendant plaques with embossed Sphinx and “Female in the window” motifs and suspended pomegranates (after Laffineur 1978, pl. VI:1). b) Mould made terracotta from Cyprus. One of her necklaces has numerous biconical beads and pear-shaped pendants bunched together. Another consists of five double rings from which hang a signet ring and a human-shaped amulet. Between her breasts, a shield medallion. Probably from Achna, (the so-called “Artemis” Sanctuary). CA:II (after Webb 1986, no.46).

Cyprus has produced two unique examples of bronze anthropomorphic rattle-bells in the shape of a soldier [Type (j)], with a clapper hanging inside the hollow cast figures (RA.20). They were mounted on chariot B that apparently carried the prestigious deceased to his burial place and was eventually buried with him in the dromos of Tomb 79 at Salamis (Fig. 4.42). We have already commented on the magical powers attributed to the rattling sound of bronze, be it rattles, bells or jingles worn by humans and hung on the necks of animals. As a means of protection against evil, bells were also affixed on the inside of the shields of prominent warriors, as revealed by a reference in Aeschylus regarding the shield of hero Tydeus.²⁷⁷ The clang of bells and jingles was thus associated with warrior status, and this connection survived into late antiquity; Sachs states that the epics of the later Middle Ages in Europe mention jingles on the hems or belts of their heroes (*History* 279). The rattling sounds served as a mark of distinction, causing fear and alluding to the bravery and heroism of their bearer. These symbolic connotations may be intended by the anthropomorphic rattle-bells of Chariot B, designed specifically for the heroic monumental burial of a distinguished individual, a warrior hero or monarch, as implied by their shaping in the form of soldiers. The rattling sound would accompany him to the grave, and the jingling “instruments” were buried with him, probably ensuring protection in the after-life. A few centuries later, the deceased Alexander the Great would be carried in a chariot adorned with bells and jingles (Hickmann 1965, 64; Villing

²⁷⁷ *Seven Against Thebes* 385-6; see previous chapter 4.2.2 on bells and Fig. 4.30.

2002; Schatkin 1978), apparently following a burial custom reserved for kings and/or outstanding warriors that was well established in the Eastern Mediterranean.

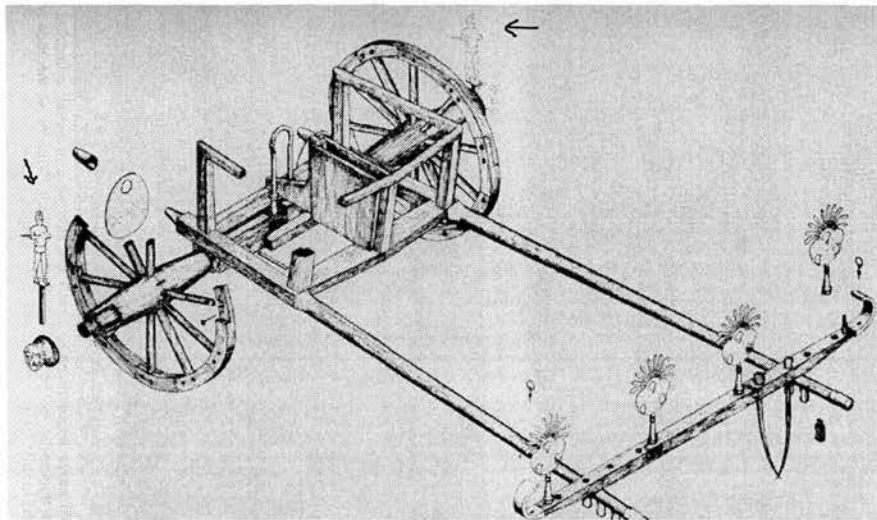


Fig. 4.42: Reconstruction of Chariot B with rattling soldiers on the axis of the wheels (after Karageorghis 1973, 69 fig. 10).

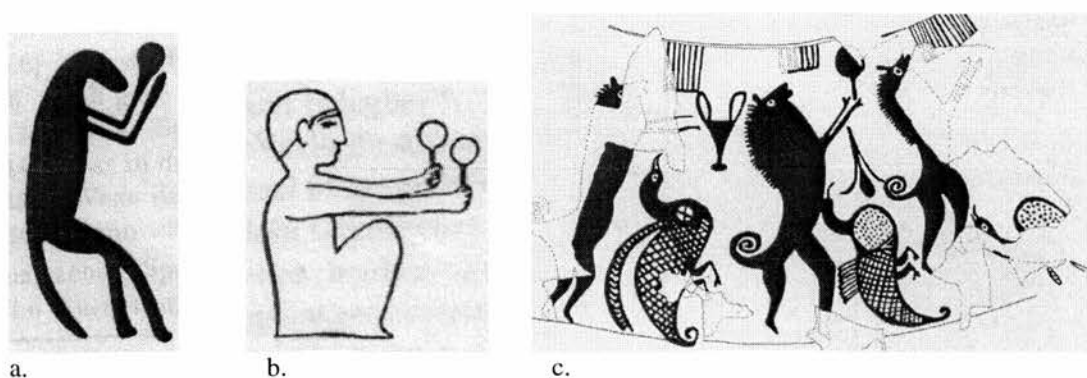
Finally, bronze vessel rattles in Greece reiterate the traditional form of round-shaped body with handle, only in this case the body is smaller and can rotate on a yoke attached to the handle [Type (k)]. The only excavated specimen comes from a child's grave (RA. 25), and it has been interpreted as a toy (see above discussion on *πλαταγή*), although Robinson does not preclude the possibility that it might have served in religious as well as secular occasions (Robinson 1941, 499); unfortunately the other examples of this type have no context (RA.15 and 15.a-d) and cannot help us clarify this issue. Their fine decoration with pictorial scenes in repoussé suggests that they must have been valued objects; the subjects may be religious (man and woman with thyrsos), secular and suggesting love-magic (man and woman in bridal gesture) or playful (youth with dog, another youth with swan).

4.3.1.2 Iconography and motifs: Bronze Age

Vessel rattles [Variation (a), Type (c): Lentoid with handle]

From all the vessel rattle varieties, only the one with a round or disc-shaped body on a staff is represented, alluding to straw/papyrus, gourd and wooden rattles, or even to similarly shaped clay rattles, like the Greek bottle-shaped rattle from Eleusis (RA.24). The earliest

iconographic evidence comes from Sumer depicting rattles in religious procession (see below, Fig. 4.47a),²⁷⁸ and Egypt (Old Kingdom), played by female dancers who also toss balls playfully (*MiB-Ägypten* 52 fig.29).²⁷⁹ A single rattle is depicted in a XIX-XX Dynasty scene shaken by a monkey in worship of the God Bes (Fig. 4.43a), but similar rattles are also played in pairs by Egyptian musicians (Fig. 4.43b). The rattles are always held upright and the elbows, while shaking the instrument, are shown bent or straight; the former position is more likely to be sound-effective and to reflect an actual playing technique, whereas the stiffness of the latter may be due to iconographic conventions. Raised arms and bent elbows are also depicted in representations of the Hellenistic-Roman period from Egypt and the Levant (Beth Nattif) with rattle players shaking round-shaped and coniform rattles on a staff (Hickmann 1954, pl. X:9; Braun 2002, 240 fig. V.31).



a. b. c.
Fig. 4.43: Spherical rattles on a staff. a) Monkey worshipping Bes. XIX-XX Dynasty (after Hickmann 1954, fig. 4). b) Squatted Egyptian musician with two rattles (after Hickmann 1954, fig. 3). c) Rhyton from Kalavarda, Rhodes. LH:IIIA2-IIIB (after Karatzali 1998, fig. 10a)

A similar round-shaped rattle with handle is represented on a LH:IIIA2-IIIB rhyton from Rhodes (Fig. 4.43c), depicting a processional scene of three human figures masked or dressed as wild boars, with birds and a flower floating in the field (Vermeule & Karageorghis 1982, 154-5; Benzi 1992, 92, IX:15-16; Karatzali 1998, 97 figs. 9, 10). The similarities in posture and overall concept with the Egyptian monkey rattle player are striking, especially in view of the chronological affinity of their production in the late 14th – early 13th century (although the Egyptian example may be slightly later). The overall character of the scene and the inclusion of a kylix strongly imply that we are dealing with a ritual procession; in the palatial art of the Eastern Mediterranean such processions are usually accompanied by strings, winds,

²⁷⁸ A unique scene from a seal impression with two rattle players also holding another object (a branch?) in the same hand.

²⁷⁹ Pritchard 1954, 274 no. 216 erroneously interprets the rattle-shaped objects held by the dancers as mirrors.

percussion and occasionally elaborate seistra. Despite the strong cultic character of the rattle, its incorporation in musical procession scenes is not common and in this respect the rhyton from Rhodes is exceptional, comparable only with the much earlier Sumerian seal representation (Fig. 4.47a).

The vivid pose with the head flicked back is suggestive of ecstatic dancing and the animal masks imply that on the Kalavarda rhyton we are dealing with a shamanistic ritual, a fact that would accommodate the use of the rattle very well.²⁸⁰ As noted by Karatzali, the bird and flowers imply the natural setting of the procession or the importance of nature in the cult represented (Karatzali 1998, 96). As we have already noted in our typological discussion [rattle Type (e)], the boar plays a crucial role in many Greek fertility cults. It is connected with the cult of Attis/Adonis,²⁸¹ with the Cretan cult of Zeus Kretagenes,²⁸² and with Demeter/Persephone and the Eleusinian mysteries.²⁸³ Its importance is thus encapsulated in myth as well as in ritual practice and suggests a totemistic cult event²⁸⁴ for the scene on the Kalavarda rhyton, with the disguised figures possibly enacting a cult drama ensuring fertility and regeneration. It is not easy to decide which of these cults, if any, is alluded to by the scene on the Kalavarda Rhyton, but the ritual use of the rattle is depicted here beyond doubt, and it may cast light on the concepts behind the Hellenistic pig-shaped rattles from Cyprus and the significance of their performance.

It is possible that the rattle is included in the ritual representation on the Kalavarda rhyton due to its importance for the specific cult. The artistic inspiration for the motif of an animal rattle player (even though in disguise), unprecedented in the Aegean, may have come from representations of animals making music already known from Old Babylonian (Spycket 1972, figs. 4, 10, 20) and Egyptian artefacts. A contemporary papyrus of the XIX Dynasty illustrates a mythical story with animals (donkey, monkey, crocodile, lion, gazelle) playing various musical instruments, although not a rattle (*MiB-Ägypten* 32, fig.9); but the abovementioned

²⁸⁰ For rattle playing in shamanistic rituals see *History* 27-8, 194, Frazer 1949, 66 and Buchholz 1990.

²⁸¹ Both deities were killed by a boar; for their association and the significance of the pig in their cult see the discussion in Frazer 1949, 471 ff.

²⁸² In one version of the myth, the infant Zeus is protected by the grunting of a sow rather than by the Kouretes beating their shields. The cultic connection between Crete and Rhodes is also encapsulated in the tradition that the Kouretes were actually Rhodian Telchines who accompanied Rhea to Crete and nourished the young Zeus (Willetts 1962, 98, 217-8).

²⁸³ Pigs were sacred animals to Demeter and symbolised the deity herself. They were thrown into sacred caverns at the Thesmophoria, dramatically representing Persephone's descent into the underworld as the personification of the Goddess (Frazer 1949, 469 ff.).

²⁸⁴ For remains of totemism in Minoan-Mycenaean and Greek religion gathered around the developed anthropomorphic deities see analysis in Willetts 1962 with references.

monkey rattle player (Fig. 4.43a) suggests that this motif was also in circulation. The Rhodian worshippers disguised as boars and the Egyptian monkey play a single rattle. Playing a single rattle would have a less complex rhythmic result and it is probable that the rattling was employed here for its magical powers and its entrancing effect upon the listeners or it might have served as signalling device for the phases of a ritual.

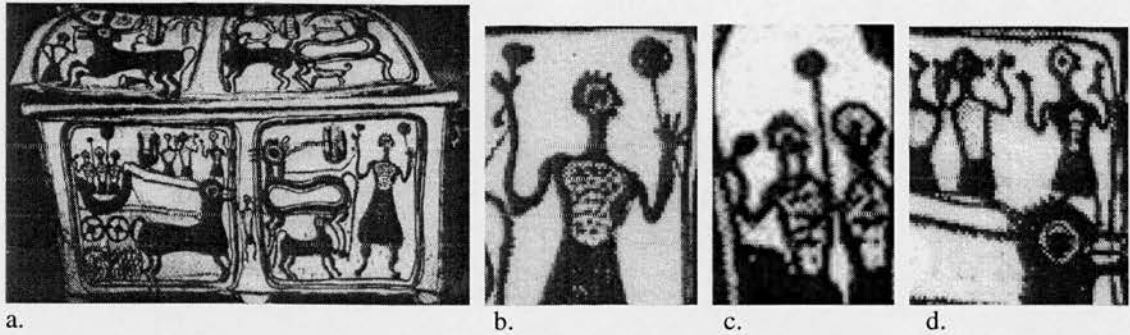


Fig. 4.44: Front side and details of a larnax found in a chamber tomb at Episkopi, Crete. LM:III (after Watrous 1991, pl. 93:a).

Another interesting representation on a LM:III larnax from Episkopi (Ierapetra) in Crete shows similar objects with a round or disc-shaped body on a staff held by various figures (Fig. 4.44). The Episkopi larnax is not decorated with the common theme of prothesis and lamentation regularly found on the Mycenaean larnakes. On the long sides it has panels with vivid scenes including wild goat hunting, suckling animals and a chariot procession over waves with an octopus; the short sides present wild goats and attacking dogs, floral and marine motifs, overlooked by a bull protome and a female seated figure on each side of the lid (Vermeule 1965, 136 ff.; Kanta 1980, 150 ff., pl. 63:1-5; Morgan 1987, 174 ff; Watrous 1991, 300 ff.).

The rattle-like objects are depicted on two scenes at the front long side of the larnax (Fig. 4.44a). We can see two variations: (a) objects in various sizes, with perfectly circular bodies and long, thin, linear staffs, and (b) objects with short, thicker handles and a kind of blob or tip at the top of the round bodies. The figure on the right panel is holding a pair of suckling quadrupeds (horses or cows) by the leash while he is holding both varieties (a) and (b) in identical ways, one in each raised hand (Fig. 4.44b). On the chariot scene of the left panel, the two passengers of the chariot carry large examples of variation (a) with extremely long staffs that are most unlikely to be sound devices, while the first figure drives the chariot (presumably the deceased himself); the last passenger also holds a type (b) object with his free hand (Fig. 4.44c). Two spectators of the chariot procession hold what seem to be type (b) objects; the first spectator also bears another object in his free hand while an additional

painted blob suggests that the second spectator may hold more than one object in the same hand (Fig. 4.44d). All three spectators raise their hands (a gesture of bidding farewell?).

The objects carried by the figures have been invariably described as “flowers, fans and vases” (Vermeule 1965, 136). The long-stemmed examples of variation (a) are thought to be parasols (Watrous 1991, 301) or banners (Kanta 1980, 157; Rutkowski 1968, 226 n.41) and have been compared to analogous objects depicted on two Mycenaean chariot scenes (Vermeule & Karageorghis 1982, pls. III:21 and X:4; Watrous 1991, n.99). The shorter variation (b) held by the spectators of the chariot scene is interpreted as a kylix by Rutkowski,²⁸⁵ a view shared by Watrous who also identifies as such the similar object held by the figure on the right panel, and by Kanta, who clarifies that only one spectator holds a kylix whereas the other carries flowers (Kanta 1980, 150, 157).²⁸⁶ The object held by the extreme left figure on the chariot has not been addressed by scholars.

In my opinion, the kylix hypothesis is not convincing as the shape of the objects belonging to our variation (b) bears no resemblance to any type of vessel or other kylix representations. On the other hand, the short handle and overall rounded body agree with the commonest rattle type; both the shape and the way the objects are held recall the rattles depicted on the Kalavarda rhyton and on Egyptian iconography. The rattle hypothesis for both scenes is further supported by the funerary context of the iconographic programme of the larnax, one that reflects LM death rituals and beliefs with regard to the Afterlife. Vermeule has drawn attention to the funerary use of the chariot theme in Mycenaean iconography, and the connection of chariot and horse burials with heroic funeral ceremonies (Vermeule 1965, 144).²⁸⁷ Accordingly, the chariot scene found on Minoan larnakes alludes to the symbolic journey to the underworld, but it may also represent the actual funeral ceremony involving a chariot parade. Given this, it is possible that the chariot scene of the Episkopi larnax depicts the custom of rattling at funerals of prominent individuals, a custom archaeologically attested at Salamis a few centuries later (heroic burial of Tomb 79) with the anthropomorphic rattle-

²⁸⁵ In particular, he is eager to identify here the custom of breaking vases at the grave, and specifies that “one of them is holding a kylix, the other is just throwing down a kylix” (Rutkowski 1968, 226 n.41), an overstatement, in my opinion, that is not supported by the iconography itself.

²⁸⁶ This may be the case for the middle spectator who possibly holds more than one object; however, the flowers usually have defined petals in Minoan-Mycenaean art. Note the abovementioned rattle players from the Sumerian seal impression hold more than one object in their hands.

²⁸⁷ Also note Watrous’ comment on the heroic feeling of the Episkopi larnax and the strong Mycenaean overtones of its iconography (1991, 305-6), as well as the Mycenaean imports found in the Episkopi tombs (Kanta 1980, 154).

bells (RA.20) mounted on chariot B, accompanying the deceased to the grave.²⁸⁸ It is worth noting that on the Episkopi larnax the rattling is provided by the last figure on the chariot, comparable to the much later anthropomorphic rattles attached on the back of chariot B that was buried in the dromos of tomb 79 at Salamis after the funeral procession.

The figure of the right panel is interpreted as taking the animal to sacrifice (Kanta 1980, 157), thus alluding to the performance of rites that would ensure the protection of the deceased in the Afterlife (Watrous 1991, 301). The suckling-animal motif highlights the symbolic meaning of the scene, as this motif generally alludes to fertility and growth. Thus in the context of the larnax, it symbolises the idea of life continuation after death. The connection of rattle playing with fertility/regeneration and funerary rituals that we have already analysed gives ground to the hypothesis that the variation (b) object of the right panel may well be a rattle, that is being shaken prior to the imminent sacrifice so that its magical powers would aid the ultimate goal of the sacrifice in this funerary context, namely the guarantee for regeneration and afterlife.²⁸⁹

Strung rattles [Variation (b), Type (i): Rattling jewellery]

In Egypt many layers of strung faience beads attached by two chains to a long metal handle (instead of being worn as a necklace) formed the *menat*, an instrument that was shaken by females during the rites of Hathor (Fig. 4.45a). *Menats* are considered liturgical objects and emblems of Hathor rather than musical instruments, but as they are depicted shaken together or alternately with *seistra* it seems that the combination of the two resulted in alternative rattling sounds (Manniche 1991, 63 ff). Thus Hickmann classifies the *menat* as an idiophone associated with primitive rattling jewellery worn on the feet or arms (*MiB-Ägypten* 46; (Duchesne-Guillemin 1980-1, 289).

²⁸⁸ See above our typological discussion [rattle Type (j)] and Appendix-II, RA.20.

²⁸⁹ Note that the miniature figure (chariot groom?) linking the two frontal scenes of the larnax and therefore indicating a thematic connection, is also waving a similar rattle-like object in the left hand (and a non-identifiable object in the right) (Vermeule 1968, fig. 2c).

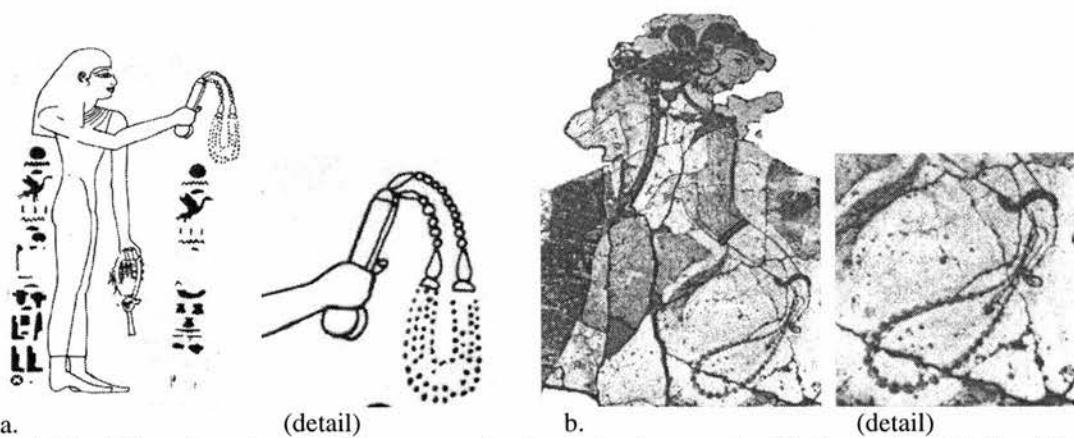


Fig. 4.45: a) Egyptian priestess with *menat* and *seistron* (and *menat* detail). Fresco from Thebes, Tomb 82 of Amenemhet. XVIII Dynasty (after Manniche 1991, fig. 37). b) The Necklace Swinger. Fresco from Thera, Akroteri, Xeste 3 (after Younger 1992, pl. LXVa).

Younger has made the interesting suggestion that a similar custom or rattling beads was used in LBA Aegean. He detects a simpler equivalent of the *menat* in the representation of females holding beaded necklaces (rather than wearing them) in religious processions and uses as examples the “Necklace Swinger” fresco from Xeste 3 at Akroteri (Fig. 4.45b) and the fragmentary “Mycenaia” fresco from the Mycenae Cult Centre.²⁹⁰ He stresses the religious character of the frescoes and maintains that the beads “were shaken to make noise that punctuated episodes in rites of passage” (*Aegean* 50).

It should be noted that the use of *menats* is exclusively Egyptian, and not adopted anywhere else in the Mediterranean. The Aegean representations of figures holding necklaces is a motif confined to large-scale palatial art media. This evidence is not enough to indicate the adoption of a foreigner religious musical practice, as one would expect to have proper *menats* or their imitations rather than the carrying of single-beaded necklaces in a manner that hardly suggests sound production. However, it may be taken as evidence of direct Egyptian influence on Minoan-Mycenaean ritual accessories at a high hierarchical (state) level. Younger also comments on the clacking sound of dress-beads, which are depicted on Minoan-Mycenaean representations (examples in Younger 1992, 273-4), an element that might be related to the Egyptian and SyroPalestinian jingles and bells on garments (Hickmann 1965, Grace 1956, 80 fig.2; Braun 2002, 24-5).

²⁹⁰ *Aegean* 49-50 with references; Younger 1992, 266 ff. had previously suggested that the beads had monetary value.

4.3.1.3 Iconography and motifs: Early Iron Age

Vessel rattles [Variation (a), Type (d): Phormiskos-shaped]

In mainland Greece vessel rattles are primarily shown on twelve Attic LG:II vases which have common features in their style and subject matter, and therefore have been attributed to a single Attic workshop of the LG:II period. They are known as “the Rattle Group” after the characteristic objects depicted on the scenes and for most of them we have no archaeological context (Fig. 4.46).

- (VP)
- 7) **Pitcher.** Athens BSA Inv. No. K83. From Athens, Kynosarges.
 - 8) **Pitcher.** BM Inv. No. 1916.1-8.2. Attic, unknown provenance.
 - 9) **Giant Pitcher.** Liverpool Museum. Attic, unknown provenance.
 - 10) **Pitcher.** Louvre CA 1940. Attic, from Boeotia.
 - 11) **Pitcher.** Boston 03.777. Attic, unknown provenance.
 - 12) **Pitcher.** Brussels Inv. No. A1941. Attic, unknown provenance.
 - 13) **Pitcher.** NMA Inv. No. 17497. Attic, unknown provenance.
 - 14) **Pitcher.** NMA Inv. No. 18542. Attic, unknown provenance.
 - 15) **Pitcher.** Copenhagen 9367. Attic, unknown provenance.
 - 16) **Skyphos.** NMA Inv. No. 729. From Athens, Dipylon grave.
 - 17) **Skyphos.** BM Inv. No. 1950.11-9.1.²⁹¹ Attic, unknown provenance.
 - 19) **High-rimmed bowl.** Mt Holyoke College. Attic, unknown provenance.



Cat. 7



Cat. 8

²⁹¹ Cat. 16 and 17 are included here as products of the same workshop, but the particularities regarding their instrument representation have already been discussed in connection with *krotala* (chapter 4.1.1), where it has been proposed that a variety of idiophones, including rattles may be shown on these scenes. Two more vases attributed to the Rattle Group show a prothesis scene and a chequerboard with a lion attacking a goat (*Rombos* 483, nos. 260, 261).



Cat. 9



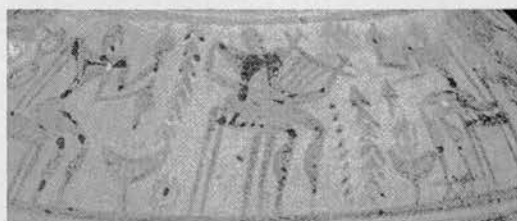
Cat. 10 (with Dipylon Warriors)



Cat. 11



Cat. 12



Cat. 13



Cat. 14



Cat. 15



Cat. 16



Cat. 17



Cat. 19

Fig. 4.46: EIA phormiskos-shaped rattles – Rattle Group. Cat. 7-16, 17, 19

The rattle-like objects are always depicted in pairs and, although their overall shape is generally consistent, it is not identical in all representations. Some examples show differences between the two objects of a pair, a fact that may or may not be coincidental. In the majority of the representations they appear to have a clearly visible bulging body with a pointed end, mounted on a long handle (Cat. 7, 8, 9, 10, 11, 13, 14, 15). In few cases they are less

articulate, almost pear-shaped with the handle appearing as a tapering projection of the body and not clearly visible (Cat. 12, 19). Finally, in two instances the multiple examples are too sketchy, with ambiguous sticks or blobs hardly being distinguished from the hand (Cat. 16, 17); it is mainly from the identical seated pose and arrangement of the arms (brought forward and parallel to each other, elbows slightly bent) that an action of a similar character (if not rattle-playing in particular) is conjectured here (see chapter 4.1.1.2 on *krotala*).

On the whole, the variations in the body outline of these objects strongly resembles that of plaited rattles which sometimes were rounded and compact, but at other times were elongated and loose (see various examples in Hickmann 1954 and above, Fig. 4.36c). However, based on the Greek archaeological record that lacks plaited examples, these objects have been compared with the *phormiskos*-shaped clay rattles found in Greek graves, sometimes in pairs (RA.28), a plausible association especially for those pear-shaped depictions of the object where the handle is tapering and not clearly defined, just like their terracotta counterparts. Some of the well-defined bodies with distinct handle exhibit a coniform shape (Cat. 7, 14) that recalls the body of the pomegranate-shaped surviving rattles from Athens already discussed (RA.1, 2).²⁹² Although one could take as mere artistic fallacies the inconsistencies encountered in the modelling of the rattles, the minor differences in their shape may not be accidental, as they demonstrably reflect actual rattle varieties in use.

The majority of scholars that have studied the so called rattle-scenes accept that the position of the hands implies noise-making (clashing, beating or shaking) and regard the rattle interpretation of the objects as the most plausible (Cook 1946; Coldstream 1968, 71 ff; Kurtz & Boardman 1971, 79 ff.; *Rombos* 205 ff.; Rystedt 1992; McNally 1968; Buchholz 1987, 103 ff.).²⁹³ The position of one object of the pair facing upwards and the other downwards has been recently interpreted as an attempt to visualise the alternate pendular motion employed in rattle playing and encountered in musical rattle performances of other cultures, like that of the South American maracas for instance (Rystedt 1992).²⁹⁴ This is different from the Greek and

²⁹² Compare with Fig. 4.48a (detail) below. The quasi-pomegranate shape of the objects has already been noted by other scholars (Hahland 1954, 187) but they were associated with pomegranate vases instead.

²⁹³ Contra Hahland 1954 who interprets them as pomegranate shaped pairs of sprinklers used in the cult of the dead (the *plemochoae* of the Eleusinian Mysteries), followed by Ahlberg 1967.

²⁹⁴ Rystedt discussed in detail the position of the hands and the handgrip in relation to the specific compositional elements of the scenes and the geometric pictorial conventions in general and has demonstrated that the arrangement of the arms is not compatible with earlier suggestions of clashing, beating or sprinkling movements, but can only be “read” as an attempt to render as realistically as possible a complex double pendular movement (Rystedt 1992, 131-2). Consequently, interpretations of the rattle-like objects as clappers, tympana (Cook 1946, 101; Boardman 1966, 3, in comparison with

Egyptian Bronze Age depictions where we have seen single and paired rattles being held upright. It is difficult to decide whether the change in the position of the LG rattles is the result of the eagerness of the LG painter to explore the sense of perspective and reflect reality (an idiosyncratic element of the artistic LG style of vase painting) or if it indicates a newly introduced rattle playing technique with swift alternate up-and-down movements that would perform complex rhythmic patterns more easily than the earlier static shaking. In favour of the latter view is the fact that not only the playing technique, but also the character of the performance appears to have changed in the EIA representations. Now the rattle players are seated, often in high-backed chairs and with feet on a low stool, a fact suggesting long lasting indoor performance, an element lacking from the Bronze Age representations.²⁹⁵

EIA rattle iconography makes use of the following motifs:

1. Antithetic instrumental ensemble (Cat.7-15)
2. File of seated musicians (Cat.19, and the questionable Cat. 16, 17)

The musicians play in pairs facing each other (Cat.7, 8, 9, 10, 12, 13) or in larger groups arranged in two antithetic rows (Cat.11). In few instances many rattle players (or musicians playing other idiophones, possibly including rattles) line up in a row (Cat.16, 17, 19) enclosed in false separate panels created by the backs of the chairs. It could be argued that the increased number of rattle players is not factual and that the motif is multiplied for purely aesthetic purposes, according to the requirements of the geometric decorative style for balanced compositions. However, group rattle playing is not unlikely, given the subtle sound of rattles (especially terracotta ones) and the fact that these instruments must have been cheap and easily acquired by the people. Furthermore, shaken idiophones in groups of three or more are shown in Egyptian iconography (*seistra* and *menats* in this case), performed by priestesses and temple songstresses while singing hymns in praise of the god (Manniche 1991, 63).

The static position of the rattle player is perpetuated in all representations and supports the view that we are dealing with a consistent performance practice. The seated position would ensure better control in the performance of rhythms, and the antithetic grouping or juxtaposition of rattle players may imply complex rhythmic combinations or even multiple

the discs represented on the votive sheet from the Idaean Cave, our Cat. 178) or sprinklers (Hahland 1954; Ahlberg 1967) should be ruled out; the fact that the objects are held by male as well as female figures also verifies that they can not be spindle whorls.

²⁹⁵ For analysis of the elements that indicate indoor activity (furniture, chequerboard etc.) see *Rombos* 283 ff. and Rystedt 1992.

rhythms characterising the “old music” before the 5th century (see above n. 19). Furthermore, the musical character of the performance is exemplified by the inclusion of a lyre player in some of the rattle scenes (Cat. 13, 14, 15) and it is not unlikely that the music ensemble might be accompanied by singing. When rattles are played with lyres, the scene retains its symmetry and balance; either the lyre player is flanked by two rattle players (Cat.13), or both musicians are grouped in pairs (Cat.14, 15). In Cat.14 the pairs are identical, depicted in mirror reverse. Cat.15 however is more puzzling, as the two pairs of musicians differ in that the one on the right does not include the lyre, but the figure seated opposite the rattle player has the left arm raised (with an unidentified blotch of paint at the end of the hand extremity) and the right near the thigh. The position of the arms might indicate cheironomical gestures aiding the ensemble performance that could also include singing (see chapter 4.6.1.2 below).²⁹⁶

Musical ensembles comprising shaken idiophones and strings are not found in the iconography of the Eastern Mediterranean; in fact, multi-instrumental performances generally keep rhythm with clappers and hand-clapping.²⁹⁷ Vessel rattles are not part of an orchestra and usually appear played solo in dance/ritual performances. The only exception is a Sumerian seal impression from the Royal Cemetery at Ur (Dumbrill 1998, 185) depicting a unique combination of an arched harp, two plausible rattles (round body on a linear stick) and possibly a bell (Fig. 4.47a). The *seistron* is slightly more favourable, included twice in the Mesopotamian orchestras and performed together with the giant bull-lyre and a membranophone (tambourine or kettle drum), all played by seated musicians (chapter 4.6.1.1, Fig. 4.65a).²⁹⁸ It may be that *seistra* (especially bronze ones) had a more attractive sound or that they were more highly valued than rattles and thus were admitted to the palatial musical and iconographic repertoire; but given their similar, undetermined pitch, one would expect that the two instruments were interchangeable (unless a specific religious performance context dictated otherwise). Nevertheless, the combination of *seistron*/rattle and lyre is rare (Spycket 1972, 171), confined to 3rd millennium Mesopotamia and lacking completely from Levantine, Egyptian and Aegean Bronze Age iconography.²⁹⁹ It is difficult to decide whether the absence

²⁹⁶ Scholars usually refer to two pairs of rattle and lyre players (*Rombos* 480). It is unlikely that there was a second lyre that has now faded, as the left (inner) hand is fully modelled.

²⁹⁷ The jingles attached on stringed instruments from Egypt and Mesopotamia do not qualify as ensembles.

²⁹⁸ The ensemble is seen on a Sumerian scene decorating the soundbox of a giant lyre from Ur and on an Akkadian seal impression (*MiB-Mesopotamien* fig. 8 and 42 respectively). The former employs the antithetic grouping syntax, just like the Rattle Group scenes.

²⁹⁹ In the absence of other iconographic material, Minoan hieroglyphics combining the “*seistron*” (*CHIC* 057) and “lyre” (*CHIC* 092) signs can not be taken as solid evidence of an ensemble, since these meanings are not certain and modern scholarship maintains that the signs are logograms and not

of shaken idiophones in music ensembles of the 2nd millennium is indicative of the musical taste of the people or derivative of the deeply cultic significance of rattles and *seistra* that confined their use to mystical/magical/liturgical occasions that were not depicted on art. In the early 1st millennium the music trends seem to change in the Levant, with the introduction of a new kind of rectangular stick rattle or *seistron* [Variation (b)]³⁰⁰ in a wind-and-percussion orchestra, as depicted on a 9th-8th century ivory pyxis from Nimrud (Fig. 4.47b), again employed in a processional performance of religious character.



a. b.
Fig. 4.47: a) Musical procession towards a seated deity, including harp, two rattles and a bell. Seal impression from Ur. 3rd millennium BC (after Dumbrill 1998, pl. 4). b) Musical procession on an ivory pyxis from Nimrud. From left to right: two *seistra*, a tambourine, two *auloi*. BM Inv. No. 118179 (after MiB-Mesopotamien fig.122).

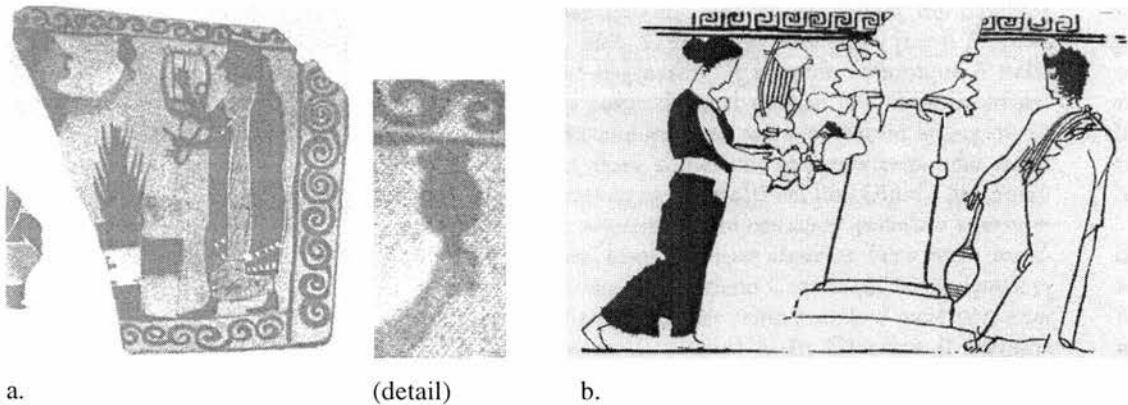
The iconography of the Rattle Group points towards a similar appreciation for the musical aspect of shaken idiophones and is doing so in an innovative way. Firstly, it abandons the previous LBA motifs of solo standing rattle-players participating in shamanistic or funerary rituals. Secondly, it replaces the *seistra* of the Mesopotamian and Levantine ensembles with rattles. Thirdly, by illustrating the performance of rattles and strings it enriches the iconographic repertoire with a musical combination that must have been used and practised by the common people, as is suggested by the scarcity of other artistic inspirations and prototypes for the rattle-lyre ensembles. Fourthly, it possibly alludes to a new playing technique using swinging movements. Too many conventions are being broken with the sudden appearance of

ideograms (Olivier 1990; see also chapter 4.3.2). For the exclusion of shaken idiophones from the Old Testament ensembles see Braun 2002, 107.

³⁰⁰ See previous discussion on *πλαταγώνιο* and *ψιθυρά*. The instrument was initially interpreted as a zither (*History* 118; Barnett 1957, 78-9, pl. 16-7; Rimmer 1969, 40, pl. VIIb; *Aign* 158; more recently Mathiesen 1999, 280 ff.). But the stick rattle or *seistron* hypothesis explains better the way the instrument is held and played, as it is identical with that of the Late Classical “Apulian *seistron*” (Keuls 1979; *West* 126; Lepore 1991) and some Hellenistic Apulian terracottas (Zancani-Montuoro 1974-6, 39, pl. XV:c-f). The identification with a metal stick rattle variety is also supported archaeologically by similar bronze instruments found in EIA South Italian graves (Zancani-Montuoro 1974-6, 27-42, no. 59 (“calcofono”), pls. IX-XVII; Frederiksen 1976; Genière & Sabbioni 1983-4, 185, pl. LXXXI; Gehrig & Niemeyer 1990, no. 128 for an example in Zurich). These consist of rotating rings strung from transverse rods mounted on a rectangular frame; they can produce sound either by rotating the

the Rattle Group scenes, a fact that might explain their exclusive and limited production by one Attic workshop (rather than directly copying North Syrian non-musical imagery of a funerary meal as suggested by Ahlberg 1967).

The Geometric Rattle-Group scenes were an Attic iconographic phenomenon that was also followed up in the Archaic and Classical periods. The same combination of lyre and rattle in juxtaposition is shown again on a 6th century painted pinax from the Athenian Acropolis (Fig. 4.48a). The musicians are standing on each side of a chequered construction that has been interpreted as a burning altar (*Stringed* 29; *LIMC II.1*, 260:h). Scholars commenting on the scene focus on the lyre and usually refer to the rattle-shaped object as a pomegranate (*Aign* 232 cat. V/25; *MusikTanz* 70 no.12; *Stringed* 29). But the attitude of the raised arm leaves no doubt that the figure is shaking a pomegranate-shaped rattle, exemplifying the established character of this musical ensemble. Another representation on a Classical White-Ground lekythos shows two females standing on each side of a column (presumably an altar or a tomb monument); the left figure is associated with a lyre (hanging or floating in the field) whereas the right figure holds a *phormiskos*-shaped object facing down, which is more likely to be a rattle than a vase or astragalos pouch judging from its compact shape and stick handle (Fig. 4.48b; see also the earlier discussion on *phormiskoi* [rattle Type (d)]). Although the instruments here are not played, their combination and juxtaposition perpetuates the musical practice and compositional syntax introduced for the first time during the Geometric Period with the Rattle Group scenes.



a. (detail) b.
Fig. 4.48: a) Pinax depicting lyre and pomegranate-shaped rattle (detail) played at an altar. *NMA* Inv. No. 2532 (after *Stringed* 44, fig. 5.b). b) Scene on a lekythos from the Ashmolean Museum (after Brocato & Buda 1996, 82 fig. 3.5).

rings with the fingers or strumming them with a plectron (a different playing action from that of xylophones and metalphones where the metal bars are struck).

The performance context of the Geometric rattle scenes has puzzled scholars for many decades. Some have proposed shamanistic rain-making rituals for the rattle players (Harrison 1912, 77 ff.; Buchholz 1989, 108 ff.).³⁰¹ But the majority associates them with death rituals on the basis of iconographic elements present in almost half of the scenes (Cat.7-11) that are recurrent with the prothesis representations, namely the chequerboard (marking the shroud in prothesis scenes), the Dipylon shields and the Dipylon warriors (the latter appearing only once, Cat. 10).³⁰² Opinions vary as to where the funerary rattling took place, with the chequerboard being the main point of controversy.³⁰³

The funerary aspect of rattle playing cannot be denied, especially considering the exclusive grave context of Greek *phormiskos* and pomegranate shaped rattles and the representations of *phormiskos* shaped objects on funerary artefacts like the Ashmolean lekythos. But if Rystedt's identification of the chequerboard as a carpet and the shields as part of the interior decoration is correct, then the LG funerary pictorial elements are seriously reduced.³⁰⁴ Furthermore, in one instance the centrepiece is a cauldron topped with a bird (Cat.12); both motifs are generally associated with religious ritual, and do not bear a specifically funerary character. The three scenes with a rattle and lyre ensemble (Cat. 13-15) include a table and kylix, a stemmed vase or mere rhomboids, possibly postulating some sort of ritual or indoor performance, the character of which is not clear. Finally, Cat.19 (with the associated Cat. 16 and 17) presents only the rattle players and their chairs, free from any setting confinements.

³⁰¹ Harrison's view, based on the model of Indian twin rattle-playing and alien to the Greek cultural context, is dismissed by most scholars. Buchholz on the other hand associates rattling with the Greek myth of Slamoneus who brought rain with the clanging sound of bronze vessels and finds supporting iconographic evidence in the inclusion of water birds in some of the rattle scenes. Also compare North Syrian representations of the weather god Baal and his consort Anat holding small "figure-8" shields on a staff in the same way as rattles (Gubel 2000, 187 fig. 1, 2). For details on the myth of Salmoneus see Frazer 1949, 77.

³⁰² The fact that a prothesis scene occurs on a rattle-type pitcher (*Rombos* cat. no. 261; Coldstream 1968, 72 no. 10) has also led scholars to ascribe a funerary character to the rattle imagery.

³⁰³ The earlier suggestion that the chequerboard denotes the grave itself or a heroon (Cook 1946; Hahland 1954; Boardman 1966) is rejected by subsequent research maintaining that an indoor location is intended, due to the presence of furniture (McNally 1969, 463; Parker 1996, 283; Ahlberg 1967 compared the chequerboard to the tables of North Syrian grave stele; *Rombos* 291, 297 accepts that the performance took place indoors but she considers the chequerboard to be a symbolic allusion to the grave; Rystedt 1992 on the other hand argues that the chequerboard represents tapestry). Varied explanations have been offered regarding the meaning of rattling (and the associated rattle-lyre ensemble) in funerary ritual, among them invocation of the dead (CVA Grèce 2, 10), music at the commemorative funerary meal (Ahlberg 1967; Cook 1946) or in an ancestor cult (Parker 1996), magical/purificatory use ensuring protection from evil spirits of the dead (Boardman 1966; McNally 1969; Smith 1996), especially at the house of the deceased after prothesis and mourning (*Rombos* 291).

³⁰⁴ Note, however, that the chequerboard motif is repeated on the 6th century pinax as a construction. Neils suggests that the chequered walls of the building behind the Sirens, seen on a Corinthian representation of the relevant episode from the Odyssey, stands for Hades and the Underworld (Neils 1992, 235, fig. 15).

Scholars have tried to combine all these elements with a single meaning, stressing the similarities of the scenes (seated position, antithetic grouping, music making) and overlooking the significant differences of the various settings.³⁰⁵ In this view, funerary character has also been attributed to the seated position of the musicians, based on the fact that we find seated mourners in the prothesis and ekphora scenes.³⁰⁶ As McNally points out, however, this specific setting is missing from the representations of the Rattle Group (McNally 1969, 463). The seated position is indeed a point of consideration as it is rarely employed in two or three dimensional Greek Geometric art, but it is typical and common for the genre of musical iconography. Seated musicians are represented from the Bronze Age onwards (cf. the seated lyre player from Pylos palace), and a number of early Iron Age instrumentalists are also sitting on stools or chairs with a back (see Appendix-I). Apart from the three-dimensional examples, isolated of any setting and offering no clues for the assessment of its meaning, the seated position is found in cult music scenes (Cat. 39, 85) possibly with ceremonial overtones (cf. the seals of the Lyre Player Group, Cat.193-200). The performance of the seated lyre player inside a naiskos (Cat.85) from Cyprus for instance is displaying the basic elements of the Rattle Group scenes (seated musician, indoors performance in front of what might be a table or cauldron), and has not been perceived by scholars as having funerary connotations. It is notable that in the later example of the rattle and lyre combination with definitely funerary character (Fig. 4.48b), the figures associated with the rattle and the lyre are standing.

The antithetic scheme is more telling as a syntactical/typological feature of the rattle scenes, and it is also employed by the archaic and classical artists. In the musical iconographic repertoire of the early Iron Age it is found on limited but apparently symbolically charged scenes.³⁰⁷ Since our discussion on rattle typology and LBA rattle iconography has shown that rattling may have been a feature of a variety of rituals connected with fertility, regeneration as well as funerary, it can be postulated that the individual motifs (chequerboard/bird/Dipylon

³⁰⁵ A methodological justification is given by Rystedt who explains that, because meaning in geometric art is constituted by the cross-reference of a limited number of pictorial elements and schemes, the stable recurrence of these schemes (what she calls "subject matter") implies a "locally and/or temporally defined framework that was not subject to flux" (Rystedt 1992, 128).

³⁰⁶ Ascribing funerary connotations to the seated attitude, Rombos connected the seated rattle players to some enthroned terracotta figurines deposited in geometric graves (*Rombos* 289 ff.), based on an example from the Athenian Agora holding a spherical object (Young 1939, 64-5 fig. 41) which she takes to be a rattle rather than a pomegranate; the association is interesting, but the position of the arm of the terracotta does not support the rattle hypothesis.

³⁰⁷ cf. Lyre Group seal (Cat.193), painted pinakes from Crete associated with temples (Cat.55, 56) with juxtaposition over a lyre, or Cat. 43 with antithetic Sirens playing lyre and *krotala*; the potential

shield, table/kylix, stemmed vase, cauldron/bird) employed by the LG painter may be interchangeable precisely to allude to different performance contexts, whereas the recurrent compositional syntax of seated antithetic musicians is used as a scheme for “ritual practice” in general, in the same way that the processional scheme is applied alluding to a broad sphere of religious activities.

An object similar in shape to the rattles of the Rattle Group is depicted on an earlier bronze bowl from Cyprus (Fig. 4.49):

(M) 181) Shallow bowl. *MMNY* Inv. No. 74.51.5700. From Idalion, Cyprus.



Fig. 4.49: Cat. 181

The bowl shows a musical procession towards a seated figure, a theme that is repeated with variations in 7 bronze and silver bowls found in Cyprus and Greece (Cat.179-181, 183, 186-187, 190). This is the only instance in the corpus where the female figure (possible priestess) approaching the table before the seated figure is holding a rattle-like object with handle, whereas the usual motif is that of figure holding a whisk-like object.³⁰⁸ The position of the arm, bent and raised at face level, is in accordance with rattle playing representations of the Bronze and the Iron Age that we have already examined. It could be postulated that rattling might have some connection with the ritual represented on the bowl, as the rattling figure is separated from the musicians following her and placed between two tables with liquid offerings (jugs) and fruit in a bowl. The identification with a rattle, however, is only tentative, given that this element is found only once in scene that is much repeated not only on the bronze bowls but also on some of the seals of the Lyre Player Group (Cat.193, 195, 198) in its abbreviated form.

funerary symbolism of the latter is embodied by the Sirens, and not by the fact that they are in juxtaposition.

³⁰⁸ This object is not shown on a bronze bowl from Iran (Teheran Museum Inv. No. 15198) which is the closest parallel to the Cypriote bowl in terms of workmanship and imagery, and otherwise presents an identical musical procession with that of Cat.181 (*Bowls* 347, U6; Culican 1986a).

Although the only archaeological documentation for jingles that we possess comes from Northern Greece (RA.26), iconographic evidence is provided mainly by Cypriote terracottas (Fig. 4.50).

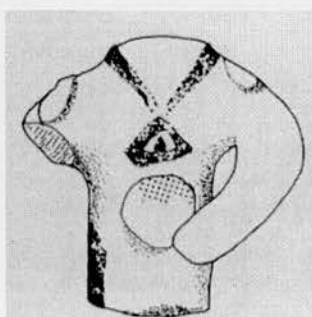
- (C) **82) Bell-doll with upraised arms.** *BM* Inv. No. 94/11-1/479. From Cyprus, Amathus, Tomb 198
- 84) Figure with upraised arms.** Pierides Foundation. From Cyprus, unknown context.
- 103) Figure with tambourine (disc).** MFF 76.1.7. From Cyprus, Amathus, grotto below the Acropolis.



Cat. 82



Cat. 84



Cat. 103



a.

Fig. 4.50: Iron Age conical jingles from Cyprus. a) Egyptian triangular jingle worn as anklet. From Luxor temple (after Hickmann 1965, pl.2c).

The figurines on Cat. 82, 84 and 78 are wearing a distinctive type of pendants with roughly conical or bell shape; for that matter they could also be bell pendants rather than jingles, either imitations without clapper, or proper miniature instruments able to produce jingling sounds (see Appendix II-Bells). However, the pendant of Cat. 103 is painted in outline and shows the pebble inside its triangular body. This fact supports our jingle hypothesis, and calls attention to similar triangular/conical pendant representations that are not painted in outline. Cat. 82 and 84 are examples of this type, the latter wears two such jingles which hang from different necklaces.

Triangular jingles are known from Egyptian representations, but no such artefacts have actually been excavated. They are worn as anklets by Nubian folk dancers also playing kettle

drums on a relief from the temple at Luxor (Fig. 4.50a; *MiB-Ägypten* 72, fig. 42). Like the Egyptian dancers, Cat. 103 is also holding a tambourine and the representation may allude to a dance performance enhanced by the jingling sound of the pendant. This is in accordance with worldwide evidence associating the jingle with dance in many cultures today, and with Hickmann's account of jingles as being an a priori accoutrement of ancient Egyptian dancers (*Survey* 81 ff.; Hickmann 1965). In particular, a ritual dance is surmised for Cat. 103 given its deposition in a grotto below the Acropolis of Amathus. Similarly, the upraised arms of Cat.82 and 84 denote a religious context for the use of the jingle, where its apotropaic function would ensure protection from evil while calling upon the divinity, and its subtle tinkling sound would mark the supreme moment of the rite. The attitude of upraised arms may designate votaries in prayer, but the wearing of jingles also recalls the references to garments of priests bearing jingles and bells that we have already mentioned (chapter 4.3.0).

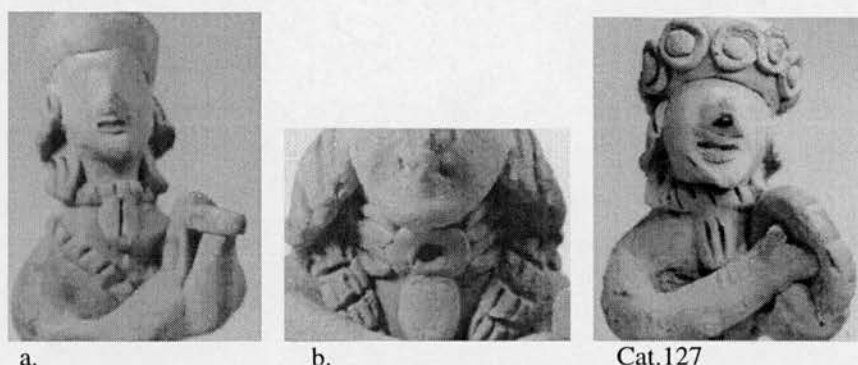


Fig. 4.51: Jingles/rattle pendants from Cyprus, Lapithos Workshop, CA:II. a) Terracotta female lyre player wearing a single slit pendant (jingle?). *CM* B112a. b) Detail of the shell-shaped collar chain of a terracotta female tambourine player. *CM* B211. c) Cat. 127 wearing a double slit pendant (jingle?). *CM* B205. (photos by the author).

Another type of pendant worn by numerous terracotta figurines from Lapithos in Cyprus might also be interpreted as a jingle.³⁰⁹ The handmade figurines from Lapithos generally wear a variety of jewellery, including earrings, nose rings, bracelets, and multiple short and long chains worn as necklaces from which hang different types of pendants, all rendered plastically. One pendant type of considerable size has an ovoid shape with one or more transverse slits in the middle (Fig. 4.51a-c) and has no exact parallel in Cypriote jewellery. Parallel transverse incisions featuring on the chains are thought to indicate the beads (Yon &

³⁰⁹ The large group of figurines found at the end of the 19th century at Lapithos is thought to have come from a bothros associated with a nearby sanctuary. Their general stylistic uniformity (despite the sub-groups within the main stylistic group) indicates that they come from the same workshop whose productive activity is dated early in the CA:II period (*Coroplastic vA*, 36). From the various attitudes of the figurines it is surmised that the sanctuary was dedicated to the cult of a female fertility deity, the Great Goddess (Yon & Caubet 1988). For the mouldmade variety of terracottas from Lapithos see previous chapter 4.1.2.2.

Caubet 1988, 5), but this has not been argued for the slit pendants where indeed the bead interpretation is unlikely.

The ovoid shape and consistently incised slits of these pendants might suggest jingles and/or cowrie shells often worn as amuletic jewels. The slit is the characteristic feature of jingles (Fig. 4.52a, b), which bear a single opening on their spherical body similar to that of the Cypriote terracottas. Furthermore, Egyptian jingle representations sometimes show the slit in a similar way, as a transverse line in the middle of an ovoid pendant (Hickmann 1965, pl.2a). Some bronze Egyptian jingles of the Pharaonic period are shaped as cowrie shells (Fig. 4.52b), combining the prophylactic powers of the jingling sound and the symbolic shape of the cowrie.³¹⁰ The ovoid shape of the Lapithos slit pendants might allude to similar shell-shaped amuletic jewellery.³¹¹ In favour of the jingle interpretation over the mere cowrie shell is the feature of more than one vertical slits on some Lapithos pendants (Fig. 4.51c) that may be compared to the openwork bronze bell-rattle pendants from the Near East that we have already discussed (chapter 4.3.1.1).³¹²

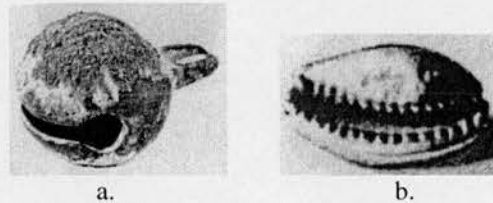


Fig. 4.52: a) Egyptian bronze spherical jingle with slit (after Hickmann 1965, pl. 1.i). b) Jingle from Luxor in the shape of a cowrie shell (after Hickmann 1965, pl.2d).

The slit pendant, typical of the handmade variety of the Lapithos workshop, is worn by lyre and tambourine players, figures with upraised arms and votaries bearing offerings (Yon & Caubet 1988; *Coroplastica* v, 35 ff., pls. XXI-XXIX).³¹³ The jingle is an appropriate jewel for musicians, but it is also worn by figures in the worshipping attitude with upraised arms (Cat. 82 and 84), a fact that underlines its magical/prophylactic and religious function. It is possible

³¹⁰ For the resemblance of the cowrie shell to an actual eye and its use as an amulet against evil see Hickmann 1965 and Reese 1985.

³¹¹ Yon & Caubet describe as shell-shaped the earrings of the Lapithos figurines, which have slits on a flat surface; it is surprising that they do not consider this explanation for the pendants (Yon & Caubet 1988, 5).

³¹² Such open-work pendants are attested in Rhodes (see discussion on Bronze rattles in chapter 4.3.1.1 and Fig. 4.39), but they have not been found in Cyprus; however, the example of a small CA openwork bronze bell from Idalion (BE.10a) that must have been worn as pendant indicates that similar artefacts were not unknown on the island. Bell iconography (discussed in chapter 4.2.2) has also shown that tingling sounds such as those of bells and rattles were part of the accoutrement.

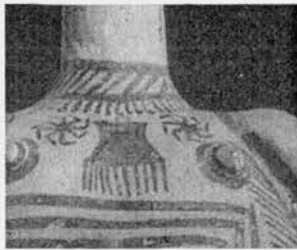
³¹³ For the examples illustrated here see in particular *Coroplastica* v, 42-3, cat. nos. I(xi)h. 60, 62 and I(xi)i.74, pls. XXVII:5, 7, XXVIII:8

that the terracottas wearing jingles are not just any votaries, but may represent priestly figures or individuals that offer their services to the deity.³¹⁴ From the examples discussed it seems that jingles were confined to the sphere of female accoutrement. Cat.84 is clearly female, wearing a polos and having painted pellet breasts; the figurines from the Lapithos Workshop are generally thought to be female too due to the rich gold (painted yellow) jewellery that they wear, although breasts are rarely indicated.

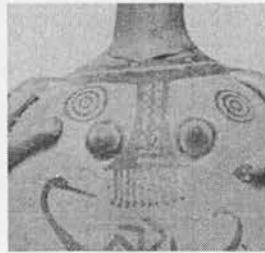
Suspension rattles [Variation (b), Type (i)]

- (VP) 31) **Kantharos.** Dresden ZV 1699. From Boeotia.
 (C) 62) **Bell-doll.** *Louvre* Inv. No. CA 573. From Boeotia, unknown context.
 63) **Bell-doll.** Boston Inv. No. 98.891. From Boeotia, unknown context.
 83) **Figure with upraised arms.** Kouklia Museum. From Cyprus, Palaepaphos-Skales, Tomb 62.

Another form of rattling jewellery is shown on Greek and Cypriote terracottas, this time more clearly in the shape of a bell with stems suspended from its rim (Fig. 4.53).



Cat. 62.



Cat.63



Cat. 83 (with drawing of pendant)

Fig. 4.53: EIA suspension rattles (rattling jewellery).

Like jingles, the rattling jewellery with suspended stems is worn by female figures with cult symbolism. Cat.83 is wearing a polos and has her arms upraised; her attitude indicates worshipping, and the polos and jewellery may suggest that she is a priestly figure. Cat. 62 and 63 are bell-shaped figures with mobile legs (the significance of their body shape has been discussed along with bells in chapter 4.2.2). Their decoration includes various cult symbols,

³¹⁴ Karageorghis has remarked upon their ecstatic expression (*Coroplastic* v, 35) and service to the deity and the temple on the part of the adorants is thought to include prostitution (Yon & Caubet 1988, 13).

like birds, rotating swastikas and spiky circles (solar discs?); a related example is also decorated with a female dance scene (Cat. 64). The choice of a bell-shaped pendant with rattling stems (probably like the similar bronze pendants from Northern Greek grave and sanctuary deposits that we have already discussed) is in accordance with the ritual character of these artefacts, whose overall shape exemplifies the importance of jingling or rattling sounds in this context.

Finally, attention should be paid to some ambiguous objects held by female dancers and thus possibly alluding to sound devices appropriate for dance, such as rattles. On a fragment from Argos, we can see a tripartite object possibly attached on a chord or stick, hanging from the wrists of two of the dancers (Fig. 4.54a). All female dancers are wearing the polos, holding hands and branches. They are followed by a male leap dancer, a bird, and what seems to be another file of female dancers led by a male musician; only the legs of the musician and the first dancer remain, with evidence of the central part of a similar tripartite object between them, which must have been hanging from the wrist of the first female dancer (Courbin 1966, pl. 147). Ahlberg has mentioned in passing the rattle-like appearance of these objects (Ahlberg 1987, 65). Although their rendering does not match any of the typological variations that we have discussed, suspension rattles of some sort are the only explanation that can be given if these objects are indeed sound devices.

On the fragment from Argos the possible rattles are held by the first and the last dancer of the file, and at least one more dancer in the middle. A similar arrangement is seen on the Boeotian kantharos of Cat.31 which shows two differently shaped objects also held by the first and the last female dancer as they face a male lyre player (Fig. 4.54b). It is difficult to envisage the sounding potential of the first object, a dotted circle held by one of the eight winding spikes springing from its circumference. We could hypothesise that it is a strung rattle whose undulating parts suspended from a ring would clatter once the object was shaken, but for the moment there is no comparative material evidence to support this attractive hypothesis. On the other hand, we have already discussed the strong possibility that the spiky object may actually represent a wind instrument, a type of bullroarer shaped like a wheel and known as *rhombos* or *inyx* (see chapter 3.1).



a. b. Cat. 31 (detail) c.
 Fig. 4.54: Possible suspension rattles. a) Fragment from Argos. *NMA* (after Ahlberg 1987, fig. 19). b) Cat. 31. c) Bronze rattling pendant from Karagač (after Kilian-Dirlmeier 1974, pl. 75: 1318)

The last female dancer of Cat.31 holds four consecutive circles with a central dot (Fig. 4.54b, detail). Isolated circles with a dot are common filling motifs in Geometric vase painting, included in all kinds of iconographical subjects; sometimes they are also arranged in a line (vertically or horizontally) detached from each other, and occasionally they are connected with a slanting line thus forming a pseudo-spiral ornament. Cat.31 is different in presenting the four vertically arranged circles overlapping with each other while being clearly held by the dancer's free hand.³¹⁵ In a prothesis scene on an Attic LG:I krater (*MMNY* 14.130.15; Boardman 1998, 36 fig. 46:2; Ahlberg 1971, fig. 22e), birds and fish arranged vertically and carried by warriors as offerings for the deceased are overlapping with the warrior's hand and with each other in a manner similar to that of Cat.31.³¹⁶ The vertical arrangement of bird and fish allows a full view of objects that must have been actually bunched together; this strengthens the possibility that on Cat.31 we might have an object comprising rings which are somehow interconnected. Ahlberg has suggested that the circle-with-central-dot motif in the prothesis scenes denotes wreaths and garlands connected with the figures or the decoration of the room (Ahlberg 1971, 152-3, 295); nevertheless, this interpretation is not definite since the Geometric painter would have thus replaced the usual wreath representations with a generalised abstract motif for no apparent reason, and Ahlberg herself has pointed out that "the milieu-indicating value of the [pictorial] elements may vary from motif to motif" (Ahlberg 1971, 158). In analogy with the more relevant iconographic context of the abovementioned Argive dance scene where the first and the last dancers of the file carry possible suspension rattles, it could be argued that the four overlapping circles of Cat.31 may

³¹⁵ Note how the artist has arranged the circles in a curve in order to align the top circle with the dancer's hand.

³¹⁶ Ahlberg claims that the foremost warrior to the right of the bier is holding a similar file of vertical dotted circles depicted in the small space in front of him (1971, 152, fig. 22c), but these do not overlap either with each other or with his hand as they do on Cat. 31.

also serve as sound devices, most probably strung rattles comprising a combination of rings (compare with the bell-shaped example with pendant rings from Perachora discussed above, Fig. 4.40c). The only surviving artefact comparable to the file of circles of Cat.31 that could produce sound is a composition of bronze pendant rings from Karagač (Fig. 4.54c), which was deposited in a tomb and was found near the pelvis of the deceased.³¹⁷ Both the shape and the length of this object (between 0.18-0.20) is analogous to that of the artefact depicted on Cat.31. The object from Karagač, however, belongs to a Balkan tradition and thus the possible depiction of an equivalent artefact on the Boeotian kantharos would suggest cultural contacts with the North.

In chapter 3.1 we proposed that the object held by the first dancer is a whirling wheel, a sort of bullroarer. The combination of suspension rattle and *rhombos* further indicates the cultic/magical character of the performance, which may also be underlined by the use of the undulating snake-like motif between the figures.

4.3.2 Seistron

4.3.2.1 Typology and iconography

The *seistron* is a type of rattle consisting of a handle and frame with transverse crossbars where the jingling pieces (discs or rods) are mounted.³¹⁸ It is usually made of metal, but other materials such as faience, terracotta, wood or other organic material can be used for the frame and handle. The *seistron* is represented for the first time on Sumerian and Old Babylonian artefacts dated at mid-3rd millennium BC, followed soon after by Egypt (V Dynasty) and pre-Hittite Anatolia. *Seistra* are still used by some African tribes, in the Ethiopian Church, in Asia and the Americas, usually having a religious character and regarded as an instrument of propitiation. The shape of the frame and its decoration present variations, but the overall concept and sounding elements of the *seistron* remain unaltered; the surviving *seistra* and their representations reveal three typological varieties (presented here in chronological order of appearance):

³¹⁷ It was found in Tomb I with twelve fibulae, spiral rings, two conical bowls, amber and terracotta beads, a broken belt buckle and an iron knife (Kilian-Dirlmeier 1974, 211 no. 1318). The few bronze pendants consisting of consecutive circles from Greek deposits (Pherai, Olympia [Pelopion], Delphi, Aigion), could not possibly produce sound as the rings are not intersected (see Kilian-Dirlmeier 1979, 13-4, pl. 3:42-47).

³¹⁸ See chapter 4.3.0, Variation (b) and discussion on Greek terminology (σεῖστρον).

a) U-shaped (calyx-shaped, forked *seistron*). Open at the top, with straight handle and rectangular jingles strung from one or more crosspieces. This is the shape of the earliest Mesopotamian *seistra*, without any decoration; there is also an example from Egypt (VI Dynasty), some Anatolian *seistra* from Horoztepe (end 3rd millennium) decorated with birds and bull horns, and an example from 11th century BC Europe (Hochborn) (*Behn* pl. 29 fig. 66; *History* 70, fig. 28; Spycket 1972, 173 figs. 19, 20; Wegner 1950, 12, 67 nos.12, 19; ²*MGG* viii, s.v.“Rasseln” fig. 8, “Sistrum” fig. 4; *Survey* 88).³¹⁹

b) Rectangular. A simple rectangular frame adorned with quadrupeds and with rectangular jingles comes from a tomb at Horoztepe, Anatolia (*NGDMM* s.v. “Anatolia”, 389 fig. 2). In Egypt the rectangular form constitutes the so-called naos-shaped *seistron* (Fig. 4.55c right and 5.56b) known since the Old Kingdom, the rectangle being elaborately modelled like a temple entrance, flanked with volutes (possibly stylized horns) and bearing an Hathoric head below the body (*MiB-Ägypten* 50, fig. 27; Ziegler 1979; Hickmann 1949; Anderson 1973; Wegner 1950, 12, 67 no. 20). Usually made of faience, (pottery specimens are also known), it sounds by metal jingling uraeus-shaped cross-wires without strung discs (Manniche 1991, 62; *Survey* 88). Naos-shaped *seistra* are also found in LBA Canaan under Egyptian influence, always in connection with the cult of Hathor (Braun 2002, 88-90).

c) Arched (or ovoid). This is a common Egyptian shape, known since the Middle Kingdom (Fig. 4.55c left) but mainly represented in the New Kingdom (Fig. 4.55b). It is made of bronze (wooden, pottery and papyrus versions are also known), usually decorated with Hathoric heads at the joint between the frame and the cylindrical papyrus-shaped handle, although some examples are plain (Anderson 1973; ²*MGG* s.v. “Sistrum” fig. 1; Engels 1864, 224, figs.70-2). Its crosspieces with strung discs can be uraeus-shaped, but simple rods are also known. Arched *seistra* of the Late Period sound only by jingling cross-wires hanging loose in the pierced frame (see example (SE.3) from Delos) and are finely decorated with animal figures, Bes figures, uraeus snakes and floral motifs (*MiB-Ägypten* 48, fig. 25).

In Bronze Age Aegean, only Crete has provided archaeological and iconographic evidence of *seistron* playing. A terracotta arched *seistron* was found with a MM:IA child burial at Archanes (SE.1). It has two crosspieces with strung clay discs and an undecorated cylindrical

³¹⁹ Sachs advocates Egyptian origin for the *seistron*, claiming that the earlier Mesopotamian examples come from the periphery of the distribution area of the instrument and therefore must have preserved unaltered the earliest U-shaped form, which soon became obsolete at the distribution centre (Egypt) that developed two new forms (*History* 70; Mikrakis 2000, 163). It is remarkable that the earliest representations of the U-shaped form on Mesopotamian and Egyptian artefacts designate a musical character for the *seistron* played with the giant lyre and kettle drum (see chapter 4.6.1.1, Fig. 4.65a) or

hollow handle to amplify the subtle sound generated by the collision of the clay parts; this suggests that the Archanes *seistron* is an actual instrument and not a model (Sakellarakis & Sakellarakis 1997, 355). An identical arched *seistron* is represented on a LM:IB black steatite rhyton from Agia Triada, known as “the Harvester Vase” (Fig. 4.55a).³²⁰ The scene depicts a procession of workmen carrying forked agricultural implements, accompanied by a *seistron* player and three singers and led by a figure dressed in long garment and holding a long crooked staff, most probably a priest (Forsdyke 1954). Here the instrument has two jingling discs strung on a single crossbar affixed on the frame that is pierced just like the terracotta specimen from Archanes. The crossbar is secured in place either by having slightly curved ends (projecting beyond the frame) or by means of tail-pieces.³²¹

Apart from the arched *seistron*, many scholars believe that the calyx-shaped *seistron* was also known in Crete. A sign of the Minoan script (*CHIC* 057) found 53 times on MM seals and sealings presents a U-shaped body with handle and sometimes two or three transverse crossbars (Fig. 4.55d).³²² The general form of the sign is indeed very similar to the U-shaped *seistra* (although it lacks the rectangular jingling pieces and has a puzzling rod attached on the frame), but its interpretation as *seistron* is doubtful since recent research maintains that the majority of Minoan signs are logograms (morphemes with phonetic value, words or phrases) and not ideograms (signifying a thing or related concept) (Olivier 1990). The “instrument” is confined to the Minoan script and, until we have a better knowledge of the nature of the Minoan signs, the “*seistron*” sign (*CHIC* 057) alone can not be regarded as secure evidence of the U-shaped type in Crete and is therefore omitted from our discussion on typology.³²³

accompanying a dance performance respectively, in contrast with the overly liturgical use of the other two forms of the instrument.

³²⁰ *HM* Inv. No. M.H.184. Found in the NW sector, Room 4 with four benches, LM:IB context (*PM* i, 84-5, ii, 47-8, fig. 22b, iv 218 ff.; Forsdyke 1954; *Behn* pl. 68, fig. 157; *Aign* 42, cat. II/9, fig. 13; *Aegean* 6-9, 53, 74 cat. no. 53, pl. 1:1, 2, 22:1; Mikrakis 2000, 163 ff.; *Dons* 109-110). See also chapter 4.6.1.1 for discussion on the cheironomical gesture of the *seistron* player.

³²¹ It has been suggested that the arched *seistron* is also represented in Minoan hieroglyphics, seen on a sign with ovoid body, handle and crossbars or two curved lines (horns?) on its sides, the latter resembling the Egyptian sign with Hathoric head (Platon 1966, 216-7, fig. 6:4, n. 26; *Aegean* 76 no. 57, pl. 23:5). Another summary form shaped as an open loop with numerous transverse rods and no handle has also been thought to be an arched *seistron* (*Aegean* 39, 75, 78, nos. 55, 63, pls. 23:3, 24:5).

³²² Evans 1909, 169 no. P97a; Platon 1966, 216-7, fig. 6:2, 6; Mikrakis 2000, 166; *Aegean*, 39-40, 80 nos. 69-72, pl. 25: 4-7; Sakellarakis & Sakellarakis 1997, 329, 352, fig. 287. An interpretation as U-shaped *seistron* has also been postulated for another sign (*CHIC* *181) with transverse crossbars on each spur rather than between them.

³²³ See also discussion on chapter 4.6.1.1 in connection with cheironomy.

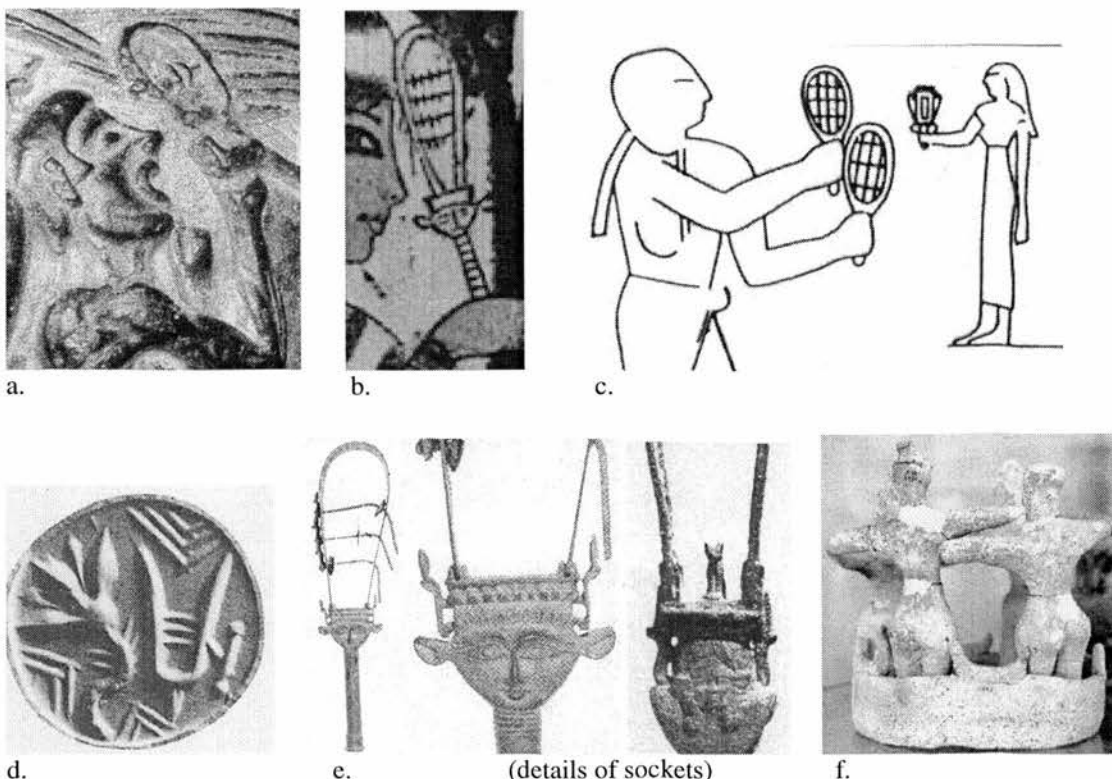


Fig. 4.55: *Seistra*. a) Harvester Vase, detail of singing musician with arched *seistron*. Crete, Agia Triada, NW quarter, Room 4. LM:IB. *HM* Inv. No. M.H.184 (after *Dons* 109). b) Egyptian arched *seistron*. Theban Necropolis, New Kingdom (after *MiB-Ägypten* fig.26). c) Relief showing a priest with arched *seistron* (left) instructing girls with naos-shaped *seistra* (right). Tomb of Khesuwer, Middle Kingdom (after Anderson 1995, 2559 fig.4). d) MM seal with U-shaped “*seistron*” sign (*CHIC* 057) (after *CMS* XI.12). e) Egyptian arched *seistra*, with detail of sockets for the attachment of the arch. Left: Late Period. *BM* Inv. No. 36310 (after Manniche 1991, pl. 11). Right: Ptolemaic Period. *BM* Inv. No. 64558 (after Anderson 1976, fig 54). f) Terracotta circle dance, with horns of consecration marking the peribolos of the dance floor. Crete, Kamilari, MM:III. *HM* Inv. No. M.H.15073 (photo by author).

The agreement of the archaeological and iconographic evidence from Archanes and Agia Triada leaves no doubts about the existence and morphology of the arched *seistron* in Crete since the early 2nd millennium BC. The Archanes specimen (SE.1) appears concurrently with the earliest literary and iconographic evidence for this type of *seistron* in Egypt and its form resembles the ovoid hoop frame and handle of a simple, undecorated *seistron* represented on a relief dated at the Middle Kingdom (Fig. 4.55c left). Since there is no comparative material from the Aegean and the arched *seistron* is only found in Egypt in the Middle Bronze Age, it is generally accepted that the Archanes arched *seistron* is related organologically to the Egyptian.

The site has produced various evidence verifying cultural contacts and knowledge of some Egyptian beliefs regarding the Afterlife (for example, the false door in one of the Burial Buildings) and the prophylactic powers of certain amulets (Sakellarakis & Sakellarakaki 1997,

351). In this context, it is likely that the general function and meaning of the Egyptian *seistron* was understood to some extent. In Egypt, the *seistron* was the prominent cult rattle associated mainly with Hathor (but also with other deities) and it was primarily shaken as a powerful instrument of propitiation that embodied the deity itself (Roberts 1995, 56 ff.; Manniche 1991, 24, 63). It was exclusively an instrument of the nobles, performed in religious rituals and funerary rites by priestesses, princesses as well as by the Egyptian king and queen and it was deposited at Pharaonic burials (Manniche 1991, 85-6; Roberts 1995, 60 pl. 69 for arched *sesitron* from the tomb of Tutankhamun; Warren 1995, 2 for arched *seistron* from the tomb of Amenemhat). It is probable, therefore, that contacts involving the elite were responsible for the organological transmission of the *seistron* into Pre-Palatial Crete, whose performance may have been primarily indicative of status, despite the humble material of the instrument; the deposition of the clay Archanes *seistron* in Burial Building 9 is contemporary with the faience *seistron* from the pyramid of Amenemhat (Warren 1995, 2).³²⁴ On the basis of the strictly cultic use of the *seistron* in Egypt, a religious character would seem more appropriate for the Cretan instrument rather than secular performance.³²⁵ The association of the Archanes *seistron* with a child burial brings to mind the Egyptian representation from the Middle Kingdom where young girls (presumably princesses) are instructed *seistron* playing and hand clapping (Fig. 4.55c). It is possible that the Cretans had witnessed such events and seen the arched *seistron* being used openly as an instrument of praise in the temple.³²⁶ A generalised direct influence from Egyptian practices may be claimed for the Archanes *seistron*, but still the character of transmission and the symbolism and function of the instrument in Crete are vague.³²⁷

³²⁴ In analogy with LBA Aegean rattle iconography already discussed, it recalls the performance of vessel rattles at elite funerals attested in later periods, as it has been shown with the iconography of the LM:III larnax from Episkopi (chapter 4.3.1.2) and the Cypro-Archaic anthropomorphic rattles from the heroic burial of Tomb 79 at Salamis, Cyprus (chapter 4.3.1).

³²⁵ It should be noted that, even though the organological transmission is taking place before the introduction of a Palatial religious protocol, the overtly ceremonial and royal character of the Egyptian *seistron* that we have outlined is incompatible with the suggestion that in Crete it was used in folk religion (Mikrakis 2000, 164), the latter usually associated with rattles (compare the shamanistic use postulated for the numerous MC-LC awl-shaped rattles (RA.16) from Cyprus). The high status of the *seistron* has also been discussed in connection with rattle iconography (chapter 4.3.1.3).

³²⁶ On the contrary, the naos-shaped *seistron* associated with secret initiation in the temple (Roberts 1995, 56) would not have been easily encountered by foreigners, and as a consequence it is not found in Crete (whereas it was performed at the Hathoric cult of LBA Canaan).

³²⁷ Warren's interpretation of the Archanes *seistron* as a case of "symbolic transfer" from Egypt to Crete (Warren 1995, 2) should take into account that symbols may change meaning according to the given context.

The iconography of the Harvester Vase, a rhyton of Minoan manufacture (Warren 1969, 88) is our only evidence for the morphology of the arched *seistron* and its performance in LBA Palatial Crete. Attention to the iconographic details may help cast new light on these issues. Although the general features of the Cretan instrument are comparable to the contemporary Egyptian arched *seistra* as shown on representations from the New Kingdom (Fig. 4.55b), the former has its own distinct tectonic form as its body is rounded rather than elongated, recalling the earlier Arcahnes *seistron* (SE.1). It also lacks two important characteristics of the Egyptian instrument, namely the long undulating serpent-shaped crosspieces extending well beyond the arched frame and the decoration with Hathoric heads at the top of the handle (compare Figs. 4.55 a, b and e left). Instead, at the same place right above the handgrip of the musician, the Harvester Vase *seistron* presents an inverted Π formation.³²⁸ It is not clear whether this formation serves a functional or a decorative purpose. In the former case, it may be compared with the sockets seen on some Egyptian *seistra* (Fig. 4.55e) where the separate arched body is fitted, but, unlike these, the frame outline of the Minoan *seistron* is discontinued and the arched body appears closed at the bottom.³²⁹ Furthermore, the formation is extremely pronounced to indicate a relatively small structural detail like that of the sockets (the sockets on the Ptolemaic example of Fig. 4.55e-left are unusually exaggerated). The inverted Π strongly resembles Minoan horns of consecration, the ultimate Minoan religious symbol (compare Figs. 4.55a and f). It is more likely that the artist is trying to depict the symbolic decoration of the *seistron*, shaped as horns of consecration and emblematic of the Minoan cult, placed at the top of the handle in the same manner that full Hathoric heads decorate the Egyptian arched *seistra* in contemporary representations of the XVIII Dynasty.³³⁰ Horns of consecration are included in Minoan music and dance representations in order to denote the religious character of the scenes, like for instance on the MM circle dance from Kamilari (Fig. 4.55f) and in front of the lyre player on the LM:IIIB pyxis from Kalami, Crete (Tzedakis 1969, 367 fig.2; 1970 figs. 1, 2; Dragona-Latsoudi 1977, pl. 22a; *Aegean* 70 cat. no. 33, pl. 14.1).

³²⁸ This peculiar feature is not discussed by scholars; drawings of the instrument present it as part of the arched body (Wegner 1950, no. 42; *PM* iv, 218-9, figs. 168-9). Aign takes it to be an intermediate piece connecting the body and the handle, but he does not explain its function (*Aign* 42 fig.13 and n. 3).

³²⁹ The drawings by Aign, Evans and Wegner erroneously present a continuous frame outline.

³³⁰ Note how the contemporary Egyptian representation also favours the symbolic decoration and eliminates the structural detail of the sockets. A comparison with the similar arrangement of the stylised uraeus serpents placed below the arched body of the much later arched *seistron* from Delos (SE.3) also supports the symbolic decoration hypothesis. Part of the decoration of a heavily ornate Egyptian *seistron* from the Late Period, now in Cairo Museum, is a closed rectangular formation (alluding to the naos-shape) below the elongated arched body and combined with an Hathoric head (²*MGG* viii, s.v.

If the hypothesis proposed here is correct, an indigenous character of the Minoan *seistron* seems to be firmly established in the LBA, on the basis of the morphology of the instrument and its decoration with horns of consecration.³³¹ The religious significance of the latter is indubitable, but scholars have proposed that the symbol may embody civic or royal associations as well (Renfrew 1985, 429; D'Agata 1992). Thus the playing of an instrument bearing horns of consecration would render an official ceremonial character to the scene on the Harvester Vase rather than a rural work context.³³² Other iconographical details put the Egyptian influence in perspective, like for instance the male sex of the Minoan *seistron* player that is in contrast with the standard Egyptian performances by female priestesses of Hathor, and might point to symbolic and cultic associations of the Cretan *seistron* with a male deity instead.³³³ The conducting of singers by the *seistron* player (see below, chapter 4.6.1.1) recalls Egyptian practices, but scholars have remarked that the heavily built torso and dress of the *seistron* player also recur in Minoan bronze figurines, suggesting that he is not of Egyptian origin (Sakellarakis & Sakellarakis 1997; *Aegean* 6 ff.; Mikrakis 2000, 166; contra *PM* iv, 219). The liveliness of the Minoan representation lacks the strictly liturgical atmosphere of the Egyptian *seistron* performances found in the iconography of the New Kingdom. Forsdyke has suggested that the Minoan ceremony was performed right before the sowing of the new crops in order to ensure fertility and magically stimulate the earth by sticking willow branches (Forsdyke 1954, 6), an appropriate context for shaking rattle instruments.³³⁴ The iconographic details reveal a special Minoan character for *seistron* performance in the LBA, clearly reflecting parallel practices in Egypt but also exemplifying local religious symbolism and, as a consequence, local musical output.

“Sistrum” fig. 1); the modelling differs from the Minoan formation, but the morphological consistency with regard the application of the decoration is notable.

³³¹ Compare with the decoration of the earlier U-shaped and rectangular *seistra* from Anatolia (Horoztepe), with bull-horns and quadrupeds [see above, Types (a) and (b)], alluding to similar local cultic associations of the *seistron*. The horns of Hathor also appear stylized on naos-shaped *seistra* but are modelled differently from the Minoan bull-horns.

³³² This is verified by the ritual decoration with rushes of the implements carried by the workmen (Forsdyke 1954, 3-4).

³³³ Note, however, that the *seistron* instructor of the Middle Kingdom relief (Fig. 4.55c) is male, and that there are references to *seistron* playing also in connection with male deities such as Anubis besides Hathor.

³³⁴ This could be compared with the Egyptian ceremonies of papyrus harvesting that was accompanied with *seistra* (Ziegler 1979, 37-9, n. 86).

The *seistron* disappears from the Cretan archaeological record until the EIA, when a bronze instrument dated at 9th-7th century BC was deposited at the Sanctuary of Hermes and Aphrodite at Syme Viannou (SE.2). Only the handle of the *seistron* remains, decorated with Hathoric heads and with naked female figures wearing polos. According to the excavator, the style of decoration suggests SyroPhoenician provenance or manufacture of this *seistron* (she rejects Cypriote manufacture), but this imported artefact was apparently dedicated by a Cretan adorant, as the sanctuary did not attract visitors from outside Crete (Lebesi 2000, 176). The sanctuary saw an uninterrupted religious activity from the Bronze to the Iron Age, with the performance of purificatory rituals during the 2nd millennium, whereas initiation rites began to take place in the 1st millennium.³³⁵ Lebesi remarks, though, that the initiation rites at Syme Viannou were also associated with previous notions of purification and fertility, and these elements altogether gave an erotic/fecund character to the relation of the male-female divinities venerated in the sanctuary, namely Hermes and Aphrodite (Lebesi 1985, 163 ff., 193-5). It is possible that the *seistron* was not a mere exotic offering but it was performed during the initiation rites that took place at Syme Viannou. As *seistron* playing already had an established role in official fertility rites during the LBA on the island, postulated from the iconography of the Harvester Vase, its potential use in Iron Age Crete as a cult instrument could insinuate reminiscences of the old Minoan tradition. Its appearance, however, does not allude to the Bronze Age past but reveals contemporary contacts with the Levant; furthermore, the Iron Age context with the introduction of new ritual customs suggests that although the overall religious function of the *seistron* could have remained unaltered, its semantic associations had undergone changes. In particular, Lebesi argues that, in the eyes of the participants at the ceremonies, the “Astarte-type” naked female of the *seistron* decoration, although not indigenous in style, could semantically refer to Aphrodite celebrated at Syme Viannou (in analogy with other locally made naked 7th century terracottas deposited at the sanctuary), and convey fertility/erotic/purificatory symbolism relevant to the rituals performed at the Sanctuary (Lebesi 2000, 176). It is interesting that both the Egyptian Hathor and the oriental nude “Astarte” figures seen on the *seistron* from Syme Viannou are also assimilated with the local Aphrodite at the Sanctuary of Amathus in Cyprus towards the end of the Cypro-Archaic period (Hermay 1988:2, 106). In the absence of iconographic or other evidence, however, the performance of the *seistron* in an Iron Age Cretan religious setting can only be an interesting speculation for the time being.

³³⁵ See Lebesi 1981, 1985 and 2000 for the changes in the character of the sanctuary over its long history.

Slightly later than the *seistron* from Syme Viannou is the 7th century *seistron* dedicated to the Sanctuary of Hera at Samos (SE.4). It is thought to be an Egyptian import and only the handle remains, cylindrical and undecorated, shaped as a papyrus stem following an old, established Egyptian tradition.³³⁶ The sanctuary has produced many offerings of Egyptian, Cypriote, Levantine and orientalising manufacture, a fact that indicates its cosmopolitan character and international appeal. Many offerings represented instrumentalists (lyre, tambourine, aulos and possibly syrinx players); musical instruments such as auloi and bronze bells (the latter of both local manufacture and Caucasian origin) are also deposited (Jantzen 1972; Furtwängler 1981; Moustaka 2001; see Appendix II). In the context of a remarkable variety of instruments deposited or represented and in the light of the apparent contacts with Egypt and the Levant, the presence of a *seistron* is all but unexpected. However, it can not be ascertained that the *seistron* was indeed performed during the rituals, and was not just an exotic offering; even so, it must still have retained its general symbolic associations.

The *seistron* from Delos (SE.3) is reported to be from a tomb, but details of the context are not given in the publication. The undulating outline of its handle can be compared with an Egyptian *seistron* in Berlin (*Behn* fig. 66 right; Engels 1864, 224 fig. 70), and the elongated arch with jingling crossbars without strung discs is characteristic of the late 1st millennium. Two similar *seistra* dated to the 2nd century BC have been found in Ambrakia (Arta) in Western Greece; they were deposited in burials at the Northwest cemetery (*Dons* nos. 74, 75). One of the burials was female and it is thought that she was apriestess of Isis, whose cult was spread in the Mediterranean during the Roman period.

The deposition of *seistra* in Samos and Crete constitute the only evidence for the presence of the instrument in the Aegean during the early 1st millennium, and there are no Greek iconographic representations of the *seistron* prior to the Hellenistic-Roman period. In accordance with the archaeological is also the literary evidence, since the term σεῖστρον (*seistron*) referring to the relevant instrument is not found in Greek texts prior to the 1st century BC, when it is mentioned in connection with the cults of Isis-Osiris (see chapter 4.3.0). This lacuna of centuries between its early appearance in Bronze Age Crete and the sporadic evidence from the early 1st millennium is remarkable, considering the indigenous performance context and style conjectured from the iconography of the Harvester Vase

³³⁶ See examples with straight papyrus handles omitting the Hathoric head in Anderson 1973, Ziegler 1979 and Manniche 1991, 87, fig. 51.

already discussed.³³⁷ The reappearance of the *seistron* in religious contexts of the 9th-7th century BC is not an isolated musical phenomenon, but connected with the first representation of clappers in the Aegean as well as the increasing evidence for rattles and rattle playing already discussed in the previous chapter.

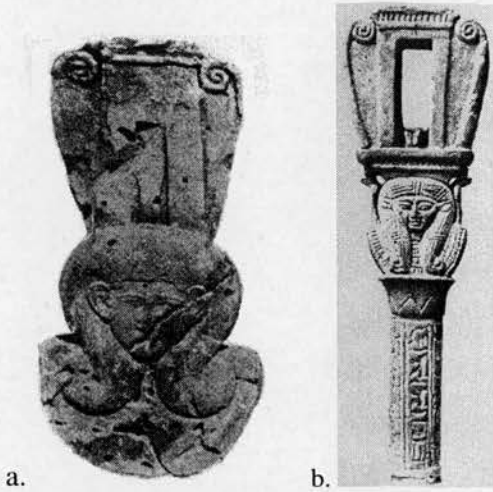


Fig. 4.56: a) Hathoric relief stele from Amathus, Cyprus (stray find). Ht.: 0.98. *LM* Inv. no. 853 (after Hermary 1985, 675 fig. 21). b) Egyptian naos-shaped *seistron*. XXVI Dynasty (7th century BC). *Louvre* Inv. No. N4314 (after Ziegler 1979, IDM 41).

The *seistron* is totally lacking from the archaeological record of Bronze and Iron Age Cyprus. This is remarkable, especially since the instrument was used at the nearby Syro-Phoenician coast and Phoenicians are known to have settled on Cypriote sites such as Kition from the 9th century BC (Reyes 1994, 18 ff. with references). As already noted (chapter 4.1.1.2), the commonest Egyptian idiophones (*seistra* and clappers) associated with the Hathoric cult (and also found on Israel/Palestine) are absent from Cyprus, even though the Hathoric motif is abundantly manifested in Cypriote sculpture (Hathoric capitals), relief plaques, glyptic and ceramics of the Cypro-Geometric and the Cypro-Archaic Period.³³⁸ That the instrument was known in Cyprus can not be doubted, since the Egyptian Hathoric capitals that apparently were the models for the Cypriote counterparts were themselves fashioned in imitation of the naos-shaped *seistron*. Similarly, some of the Cypriote Hathoric capitals from Kition-Larnaca and Paphos as well as limestone Hathoric relief stele from Amathus strongly recall naos-shaped *seistra*. (Fig. 4.56a, b).³³⁹ The use of the Hathoric motif in Cyprus was associated with

³³⁷ The problem of the *seistron* is analogous to that of the disappearance of the Early Cycladic harp from the Aegean for more than two millennia, before instruments of the harp family are represented again in Late Classical iconography (for the Cycladic harp see Schaik 1998).

³³⁸ Hermary 1985; Reyes 1994, 81-2. This motif first appears in Cyprus in the LBA, on engraved bronze plaques from Enkomi and probably on bone plaques from Toumba tou Skourou (Hermary 1985, 677).

³³⁹ See Hermary 1985, 666-8, 675, figs. 8-12, 20-21.

the local Cypriote Aphrodite-Astarte.³⁴⁰ Although the two deities Hathor and Aphrodite shared common features, the Cypriote cult practice does not seem to include the *seistron* playing emblematic for the Egyptian cult of Hathor. Cyprus has produced terracotta and bronze rattles instead, whose distinctive morphology indicates that they were associated with local cults and beliefs.

4.4 Idiophones struck indirectly – scraped

Solid objects such as sticks or bones, as well as hollow objects such as gourds or shells, can be notched on the surface and scraped with a stick to produce a brittle but rhythmical sound. The sound can be amplified if the scraper is played over a resonating box or a hole in the ground, but still it is far from being musical; musicologists recognise a ritual context for its performance in various cultures, especially connected with life, death and rebirth, often associated with ritual ceremonies and magic (*History* 43; *Survey* 91 ff.; ²*MGG* viii, s.v. “Schraper”; *NGDMI* iii, s.v. “Scraper”).

4.4.1 Scrapers (scapulae)

Notched bones that could have been scraped in order to produce sound are known from Palaeolithic Europe (*History* 63; *Survey* 3, 80, 92; Braun 2002, 94). In the Eastern Mediterranean, bovine scapulae and other bones from the Neolithic Period found at Byblos and other Mesopotamian sites have lightly executed notches on their border or across the central ridge.³⁴¹ The notched bones from Byblos, incised at the border, have been interpreted as scrapers that would have been played with the tip of a bone plectrum scraped along the incised edge of the bone in order to produce sound. Egyptian notched bones (not scapulae) from Avaris dated at the Middle Kingdom have also been interpreted as musical instruments marking the rhythm (Karageorghis 1990, n. 14; Manniche 1991, 39).

Bovine scapulae with many deep parallel incisions along their posterior border have been found in considerable numbers at a few Cypriote sites (see Appendix II-Scraper). The regularity of the incisions suggests that they were cut deliberately rather than being the result

³⁴⁰ Hermary 1985, 683. In Amathus the goddess also had features of the Phoenician “dea gravida” (Hermary 1988:2).

³⁴¹ References in Du Plat Taylor et al. 1957, 100, Webb 1977, 76-7 and 1985, 322 ff. Examples of the late 3rd millennium are known from North Syria (Caubet 1996, 12).

of use wear and the polishing of the surface over the incisions indicates that this is the finished form of the object (Webb 1985). The scapulae were mainly recovered from LBA contexts (SC.1-4), but some examples also date to the CyproArchaic and CyproClassical period (SC.1b, 5, 6). They are associated with temples and sanctuaries (SC.1-3, 5, 6) apart from one example that has been found in a tomb (SC.4) and a cultic use for these objects is ascertained. Contemporary with the LBA Cypriote examples are similar incised bovine scapulae or notched long leg-bones from 13th century Ugarit (Caubet 1987, 735-7, figs.1-2; 1996, 12-3), 12th-11th century Ekron and Dos, whereas EIA examples are known from Ashkelon (Braun 1997, 73; 2002, 176-8, pls. IV.35-7), Tarsus and Tabara-el-Akrad in Syria (Webb 1977, 77).

The identification of these artefacts as scrapers is still debatable, since no plectra were found together with the incised bones at any context to confirm this suggestion.³⁴² Furthermore, literary and iconographic evidence for scrapers is so far absent from the Cypriote and extremely scarce from the Near Eastern archaeological record.³⁴³ Traces of scraping on the scapulae to demonstrate that this was the actual use of these artefacts are not always attested on the surviving specimens (Braun 2002, 178), but evidence of wear perpendicular to the incised area have been reported from Ugarit (Caubet 1996, 13) and Kition (Karageorghis 1990; SC.1b) and it is possible that the scraping is responsible for the polishing of the incised surface of the scapulae.

Not all incised scapulae seem suitable for sound production (see example in Braun 2002, 178, pl. IV.35 interpreted as a calendar). They need to be long enough and the incisions should be deep and neatly carved in order to allow scraping. A scapula from Kition (SC.1b) with deep and wide notches (W.: ca. 0.002) arranged at irregular and rather wide distances from each other produced an acute, sharp and rattling syncopated sound when scraped hard with a bone and wood plectrum (personal examination). Similar is the illustrated scapula from Myrtou-

³⁴² Webb has argued that the material evidence from Cyprus and the Near East is not homogenous and insufficient to support the sound production theory. Stressing the religious context of the scapulae, she proposed that they were tools of divination used for scapulomancy practiced during the rites that were taking place in the sanctuaries where the scapulae were deposited (Webb 1977, 1985). Her interesting suggestion, however, leaves unexplained the polishing of the incised surface, the notches carved on other types of bones and the geometric and figurative decoration of the examples from Limassol-Komissariato and Palaepaphos (SC.5, 6) (she explains the arcs on SC.1a from Kition as test incisions). Other scholars considered the incisions as tallies, possibly for account-keeping at the temple (Du Plat Taylor 78, 100), which is contradicted by the uniform and regular manner of incision on each scapula suggesting that "they were incised at a single sitting" (Webb 1985, 319).

³⁴³ Scrapers are not among the instruments mentioned in the Near Eastern texts, but there is a representation of scrapers, unique so far, on a 3rd millennium BC Sumerian terracotta (now in *Louvre*) showing twin figures with elongated notched objects held upright with one hand, possibly having a stick used as plectrum in the other hand (Duchesne-Guillemin 1980-1, 288, pl. 30).

Pigadhes (SC.3) and other examples from Cyprus and the Levant.³⁴⁴ Other specimens have thinner incisions arranged closer to one another (SC.4, 6) with smaller ridges between the notches, which would result in a higher, more brittle and continuous sound. The workmanship and arrangement of the incisions is comparable with two actual pottery scrapers from Iran (Duchesne-Guillemin 1980-1, 288) with several thin parallel notches carved transversally along the hollow body, spaced regularly and incised close to one another (Fig. 4.57). It is notable that the instrument has short and long notches, which suggests that the scapulae specimens with short incisions should not be ruled out as possible effective sound producers. Compared to the Iranian terracotta scraper, the incised area of many scapulae specimens is rather limited and confined to the thin, hard border of the scapula (probably because this would produce a more acute sound than the wide but soft central ridge).



Fig. 4.57: Iranian bottle-shaped terracotta scraper with slit body ending in an animal's head, transverse notches and a handle at the back. Ca. 1200 BC. Teheran Archaeological Museum (after Duchesne-Guillemin 1980-1, pl. 31). Another specimen is held at the *Ashmolean*.

Notched bones similar to the Cypriote scapulae are not reported from Greek religious or funerary contexts and it seems that the rites involving incised bones were not commonly shared among the people of the Mediterranean, but this long-lived phenomenon remained restricted to the East. Their religious significance in Cyprus is beyond doubt, since they are found in the premises of sanctuaries and often within the temples.³⁴⁵ The monotonous, unmelodic, rhythmic sound of the scraped scapulae seems to be the appropriate accompaniment for marking phases of a ritual, create a continuous, mystifying sound effect or be used as a time beater for ritual songs and dances, after the sacrifice of the bovines. The abundance of scapulae found together, and the evidence from the twin Sumerian terracotta

³⁴⁴ See illustrated scapula from Ugarit (Caubet 1987, fig.1) and Ekron (Braun 2002, 178, pls. IV.36-7).

³⁴⁵ Religious are also the contexts of the Philistine and Phoenician examples (Braun 2002, 176). Note, however, that other Levantine scapulae come from unspecific, non-religious context or private houses (Webb 1977, 75-6; 1985, 324).

scraper players suggest that more than one scraper could be played simultaneously. Granted the significance of the bull in the LBA Cypriote cult, it is possible that the cutting of the incisions itself was part of a ritual and it could be postulated that the subsequent scraping of the bovine scapulae had symbolic connotations (for instance, ensuring divine presence when played as a synecdoche for the deity itself) or even magical powers.³⁴⁶ The deposition of a Cypriote scapula in a tomb (SC.4) further indicates chthonic/regeneration associations. The additional engravings on three specimens (SC.1a, 5, 6) imply that these objects were on display at some point during the ritual and their aesthetic aspect was also valued, a feature that is not agreeable with the scapulomancy hypothesis. The representation of a sphinx in particular on one of them (SC.5), being an old iconographic religious motif also combining secular associations, confirms both the strong religious symbolism of the object/instrument and supports the hypothesis of repeated exhibition granting liability for decoration.

Based on the existing evidence, the interpretation of the Cypriote incised scapulae as scrapers seems very plausible but is not yet fully documented. The performance context of the potential Cypriote scrapers is still eluding us. Ethnographic analogies of scraper playing include song and dance performance along with tambourine, rattles and bells, rain-making ceremonies, funerals and rites for the commemoration of the dead (*Survey* 93-4; Gansemans & Schmidt-Wregner 1986, 98-9; ²*MGG* viii, s.v. “Schraper”).

³⁴⁶ The choice of animal/material is important for understanding the meaning of a sound tool with overtly religious character like the scraper. Beyond Cyprus and the Near East, various tribes make their scrapers from different bones (deer, horse etc.), tortoise shells or other organic material given the shape of specific animals (examples in ²*MGG* viii, s.v. “Schraper” and *Survey* 93-4). The acute sound of the thin scapula noted by Karageorghis 1990 is another point of consideration for the choice of material in Cyprus.

4.5 Hand clapping

4.5.1 Iconography and motifs: Bronze Age

Hand clapping is the easiest way to mark the beat, as it can be done by the singer, by the dancers themselves or by the audience. It is shown in various performance contexts in Bronze Age Mesopotamia and Egypt; in the majority of representations it is depicted in a similar manner, with hands at the level of the face or the chest.³⁴⁷ The musical trend evidently continues in Mesopotamia under Assyrian rule, as we can see on 7th century reliefs from the palace of Assurbanipal at Nineveh where the elaborate musical procession (harps, auloi, drum, professional singer) comprises a large number of hand-clapping females and children (*MiB-Mesopotamien* 136 ff., fig.151).³⁴⁸ Hand clapping is found with strings in processions, but in the majority of Egyptian dance performances it is usually combined with idiophones and percussion.

The subject is not so popular with Bronze Age Greece and Cyprus. The only certain representation of hand clapping is a LC:II-III Base Ring Ware terracotta female figure from Cyprus, with both hands together at chest level (Fig. 4.58a).³⁴⁹ Indication of marking the beat by hand clapping might be also found on the slightly earlier monkey fresco from Xeste 3, Room 4 at Akroteri.³⁵⁰ The scene is reconstructed from two non-joining sections (*Aegean* 66 cat. no. 28) and the greater part of the bodies is missing. Our discussion is based on this reconstruction, but it should be noted that further evidence might turn out with the final publication of the fresco. A squatted monkey on the right end of the fresco facing left attends the combat between two monkeys facing each other hailing a sword and a sheath respectively above their heads with the inner arm.³⁵¹ The scene is accompanied by the lyre playing of another couple of monkeys on the left of the fresco who are also facing the combat (Fig. 4.58b). The presence of the lyre players gives way to the hypothesis that the middle scene can be interpreted as a mock combat or a mimetic dance. The arms of the squatted monkey on the

³⁴⁷ See for example *MiB-Mesopotamien*, 70-71 fig.52 for a Sumerian stele (ca. 2100 BC) depicting playing a giant drum and hand clapping. Egyptian iconography provides a wide range of 3rd and 2nd millennium compositions including hand clapping, see *MiB-Ägypten* 42 fig.20, 54 fig.30, 66 fig.38, 84 fig.52, 93 fig.56, 106 fig.71.

³⁴⁸ The Assyrian scene can be compared with an earlier Egyptian procession at a temple from the age of Tutanchamon (ca. 1350 BC) including groups of lutes, clappers and hand clapping (*MiB-Ägypten* 42 fig.20).

³⁴⁹ *Coroplastic ii* 10, Cat.A(vi)2, pl. VII:3. For discussion of the Cypriote Base Ring Ware figurines see following chapter 5.3.1

³⁵⁰ LM:IA context. Thera Museum. Doumas 1992, 128, pls. 95-99; *Aegean* 66 cat. no. 28, pl. 15; Rehak 1999, pls. CXLVIII, CXLVIX.

³⁵¹ For the sheath identification and interpretation see Rehak 1999, 706.

right are extended in front of its body, bent at the elbow, supported by the knee and brought closely together. There is no trace of an object held by the paws, which are slightly below the level of the face. Although the paws are missing, given the overall posture of the monkey, they could be easily reconstructed as clapping hands and supporting rhythmically the dance. The position of the paws is in keeping with the plentiful Egyptian and Mesopotamian depictions of hand clapping with the hands at face or chest level.

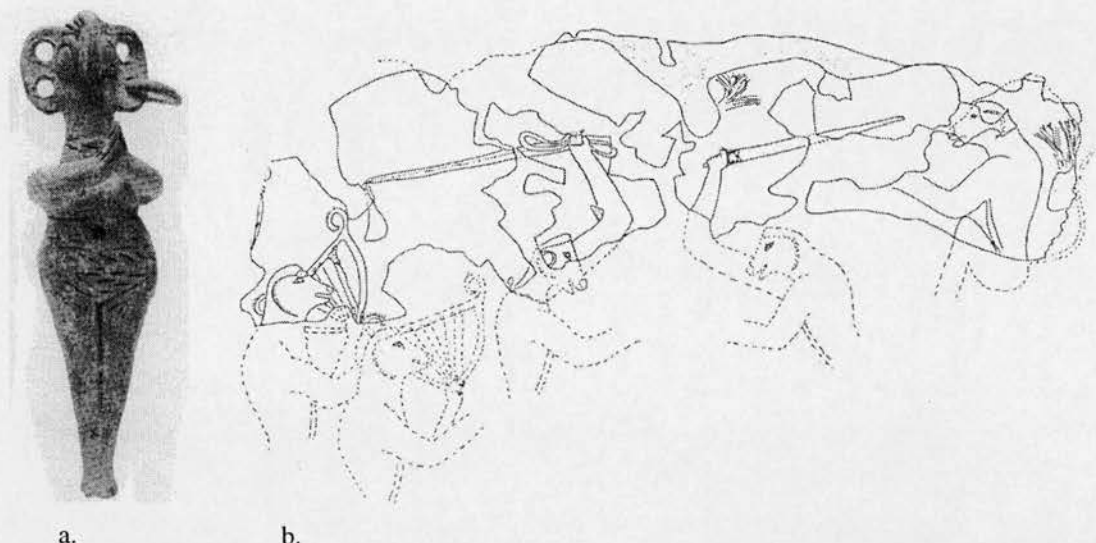


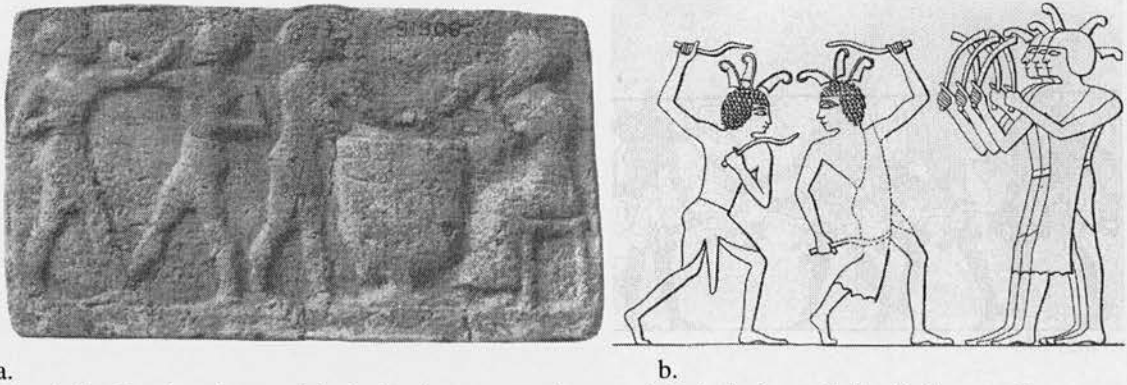
Fig. 4.58: Hand clapping: a) Base Ring Ware terracotta from Cyprus. LC:II- (after *Coroplastic ii*, pl.VII:3). b) Fresco from Akroteri, Thera, Xeste 3, Ground Floor, Room 4. Mimetic combat, lyre playing and possible hand clapping. LM:IA, Thera Museum (after *Aegean*, pl. 15).

The general subject of the Theran fresco is coupled with the several Egyptian scenes where dancers are accompanied by musicians, especially percussionists (tambourine, clappers etc.) and figures clapping hands facing or following them, standing or dancing along with the percussionists (Lexová 2000). In some cases the clapping figures are seated on one side together with the musician and are also singing along with the main singer, like for instance on the XVIII Dynasty fresco from the Tomb of Nebamun at Thebes (Manniche 1991, 50 fig. 27; *MiB-Ägypten* 66, fig.38).³⁵² On a much earlier V Dynasty relief from a tomb at Saqqara, seated groups of clapping figures are arranged in two horizontal zones facing the file of dancers;³⁵³ these may well represent the participating audience. It is reasonable to suggest that

³⁵² BM Inv. No. 37948; scene featuring two female dancers accompanied by an oboe player and three singers, two of them clapping hands and another beating rhythm on her knee; the scene is incomplete, and it might as well include strings.

³⁵³ Tomb of Niankhkhnum and Khnumhoteo at Saqqara (Manniche 1991, 24-5 fig. 11; *MiB-Ägypten* fig.56).

a function similar to the Egyptian examples was intended for the possible clapping monkey on the Theran fresco.



a.
Fig. 4.59: Combat dance with rhythmic accompaniment. a) Babylonian relief with boxers. Larsa, ca. 1800 BC. *BM* Inv. No. 91906 (after Rimmer 1969, pl. Vb). b) Egyptian relief with Libyan soldiers. New Kingdom (after Lexová 2000, fig. 61).

Although the theme of monkey musicians is common in both Egypt and Mesopotamia, it is never associated with a combat-dance.³⁵⁴ Mime performances of wrestling and combat are not unknown in the Eastern Mediterranean. In Hittite clay tablets they are described as part of the (h)išuwa festival (De Martino 1995, 2667) and wrestling scenes are often seen in Mesopotamian art (Rimmer 1969, 25), although not all of them have musical accompaniment. The Theran combat-dancers can be compared with a Babylonian relief showing two opposing boxers raising their inner arms (Fig. 4.59a); the accompaniment of kettle-drum and cymbals on their right suggest that they must be performing a mimetic dance comparable to those mentioned on the Hittite texts.³⁵⁵ Even closer is an Egyptian scene from the New Kingdom depicting two opposing Libyan soldiers in a clearly dancing posture, swaying above their heads their outer arms, holding in each hand what seems to be a boomerang-shaped clapping stick or a missile weapon (Fig. 4.59b; Lexová 2000, 30). Their movement is similar (but not identical) to the Theran monkeys who sway the inner arms, but the full body posture can not be compared as the latter have not been preserved below the top of the head. The dancing soldiers are accompanied by three musicians with boomerang-shaped concussion sticks advancing towards them from the right. If our interpretation of the Theran fresco is correct,

³⁵⁴ Monkeys can be part of an animal musical procession or provide a musical accompaniment playing wind instruments, harps or tambourines (see Spycket 1998).

³⁵⁵ Rimmer suggests ritual exercises for this scene rather than mere sport (1969, 25 ff.). For the terracotta plaque see Galpin 1937, pl. III:2; *MiB-Mesopotamien* 78, fig. 60; Duchesne-Guillemin 1980-1981, pl. 39; *Behn* pl. 13 fig. 29; Spycket 1972, 200 fig. 41; Duchesne-Guillemin 1980-1981, pl. 39; Rimmer 1969, 25, pl. Vb.

this would be a unique instance of mimetic combat-dance identified so far in the Aegean, with music accompaniment of lyres and hand clapping.

The motif of one-to-one combat (duel) is characteristic of Mycenaean art, and from LH:II it is also found in Crete. In the hands of Mycenaean artists it includes fully armed warriors or warrior-versus-animal (lion/boar/griffin) and is thought to stand for a war scene as *pars pro toto*; but in Minoan hands, the closest parallel for the combat-motif are boxing scenes from Thera, Agia Triada and elsewhere (Crowley 1989, 134 and n. 4), apparently alluding to athletic contests, festivals or rituals such as initiation rites for instance. Similarly, the Theran combat scene combined with music making clearly indicates that we have a festival or ritual scene and is therefore in agreement with the common Minoan use of the combat-motif.³⁵⁶

From our examination it has been shown that the layout of the composition with two monkeys in mimetic combat-dance flanked by others playing the lyre and clapping hands has no exact parallel. But the Egyptian and Mesopotamian scenes are always accompanied by percussion and therefore the basic element of rhythmic accompaniment is present in all three representations of combat-dance, featuring drum-and-cymbals, concussion sticks and hand clapping respectively. This is in keeping with the character of the armed dance as we have already discussed in chapter 4.0, and it strengthens our hypothesis that we have a kind of mimetic duel or a representation of armed dance on the fresco from Thera. However, the Aegean artist introduces an additional melodic lyre accompaniment into the composition, a fact that emphasise the elaborate ritual character of the scene. It may well reflect a customary performance practice not found in the neighbouring traditions, a practice that continues into the Iron Age. The combination of energetic dance and hand clapping with lyre playing is henceforth seen on a number of LG representations; in the case of the Copenhagen Kantharos 727 (Cat.5) the combat-theme dominates one side of the vase as it appears twice (Dipylon warriors, boxing match) in a general festival context, coupled with lyre playing, hand clapping and leap dancing.³⁵⁷

³⁵⁶ In her examination of Bronze Age motifs in the Eastern Mediterranean, Crowley has pointed out that one-to-one combats do not appear in battle portrayals of eastern traditions and that the "combat full of danger, dramatically portrayed at the moment of the mortal blow, has no real parallels in eastern art" (1989, 136). Note the different context of the Babylonian boxing match representation already mentioned.

³⁵⁷ Also compare the Late Classical representations of armed dances in symposia often with the auloi accompaniment.

4.5.2 Iconography and motifs: Early Iron Age

In Greek and Cypriote EIA iconography we are regularly confronted with the vivid gestures of hand clapping and feet stamping. The musical practice evidently remains alive, and it is mentioned by ancient authors.³⁵⁸ The well established motif of clapping hands at the level of the face or of the chest is the most common (Type A), but we find a few instances where the hands are placed above the head, thus incorporating the gesture into the dance movement (Type B). A more solemn dance requires a more descreet posture with hands placed lower at the front while clapping (Type C).

Type A: Hands at face/chest level (Fig. 4.60):

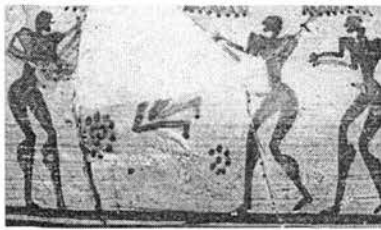
- (VP) 5) **Kantharos.** *Copenhagen* Inv. No. NM 727
- 6) **Kantharos.** *NMA* Inv. No. 14447. From Athens, tomb at Anavyssos
- 30) **Fragment.** *NMA* Inv. No. C3943. From Argos, Heraion Sanctuary.
- (C) 104) **Circle female dance with musician clapping hands.** *CM* Inv. No. B241.
 From Arsos, Cyprus.
- 131) **Standing female clapping hands.** From Rhodes, Lindos Acropolis.
- 132) **Circle female dance with musician.** *Copenhagen* Inv. No. 10483. From
 Rhodes, Athana Lindia Sanctuary at Lindos.
- (M) 185) **Shallow bowl.** *MMNY* Inv. No. 74.51.4555. From Cyprus, unknown context.

In all the painted instances (Cat. 5, 6, 30) we find the hands clearly depicted with wide palms and fingers spread out. In Greek Mainland the combination of leap dancing with hand clapping accompanied by a lyre prevails. On Cat.5 and 6 one of the dancers is performing the leap while the others are clapping, probably waiting for their turn. Ahlberg has suggested that Cat.6 represents the various stages of the leap and that Cat.30 shows the leap-dancer in smaller scale below the lyre (Ahlberg 1987).³⁵⁹ Overall, the scenes emit an atmosphere of vivid dancing with energetic rhythm. It is reasonable to suggest that the leap was most likely in time with the beat; thus the latter would not be accentuated just by hand clapping, but also

³⁵⁸ Euripides *Suppl.* 72-3 for chorus beating the rhythm; Pollux *Onomasticon* 9.123 for hand clapping at a game song; Nonnos, *Dionysiaca* 14.351, “χερσὶ περικροτέουσά”; also in *Odyssey* 8.379 the Phaeacian youths dance to the accompaniment of hand clapping.

³⁵⁹ If Ahlberg is correct in identifying another acrobatic dance scene on a Proto-Attic fragment from the Athenian Agora (Agora Museum Inv. No. P10201a), then the hand position, wide palms and spread fingers of the small-sized figure (similar to Cat.5) might also indicate hand clapping (Ahlberg 1987, 66 figs. 21a-c; *Agora VIII*, 66 no. 311, pl. 18).

when the feet of the leap-dancer would hit the ground.³⁶⁰ Leaps, jumps and skilful acrobatic dances are mentioned in Homer (Od. 8.18, Il. 18.605).³⁶¹ Similar dancing leaps accompanied by figures clapping hands and clappers are known from Egyptian representations (Lexová 2000, fig. 31, 36-7). The leap dance may have its origin to old magic and fertility rituals that sought to make crops high homoeopathically by jumping high in the air (Frazer 1949, 28). The dance of Kouretes and Korybantes, the initiated youth and attendants of the Mother Goddess, imitated the leap of bulls as they were butting their heads (Willetts 1962, 113); the *Diktaian Hymn to the Kouros*, a Cretan hymn in honour of Zeus Diktaios, also mentions that the leaping of the god in the fields would ensure they were fertile (West 1965; Willetts 1962, 212 ff.). These dances must have been custom practices ensuring fertility in the early Iron Age outside Crete as well, performed by young men as it can be seen on Cat.5, 6 and 30 from mainland Greece. The technical and spectacular aspect of the leap makes it appropriate for festive celebrations with less religious character, such as that of Cat.5.



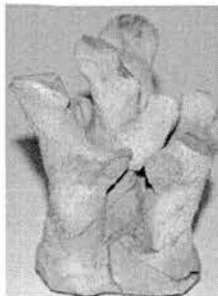
Cat. 5



Cat. 6



Cat. 30



Cat. 104



Cat. 131



Cat. 132



Cat. 185

Fig. 4.60: Hand clapping, Type A. Cat. 5, 6, 30, 104, 131, 132, 185

In Cypriote terracottas we find a different type of performance where hand clapping is accompanying a more solemn type of ring dance. The summary execution of figurines Cat. 104 and 131 and their hand position near the mouth and the head have also led to the

³⁶⁰ This is the closest visual arts can get to represent feet stamping. See Il. 18.569-72 for audience keeping time to the Linos song by feet stamping and Hesiod's *Theogony* 70 for similar accompaniment to the Muses' song; also Fitton 1973, 272-3.

³⁶¹ Laser 1987, 73-4; Simon 1978; Ahlberg 1987.

hypothesis that they might represent auloi or tambourine players.³⁶² However, in both cases there is clearly no object between the hands and it is unlikely that the artist, no matter how unskilled, would have retained the gesture of playing an instrument and discard the instrument itself. When compared with the painted examples, the ambiguous gesture of the terracottas becomes clear. Cat. 131 must have been part of a circle dance just like Cat.104. The identification of the middle figure of Cat.132 as clapping hands is based on its similarity with Cat.104 from Arsos; again the hands are not clearly connected with the mouth, but the terracotta is too roughly executed and the original intentions of the coroplast are not certain.

It has already been suggested that clappers might be played on the Cesnola bowl Cat.185 (3rd register). However, hand clapping is another possible interpretation for the ambiguous figure, as both arms are raised at face level, while the rendering is not clear and the pair of engraved lines projecting from the hands could be accidental. The figure is grouped right behind a double auloi player and another musician who is now missing; the musical trio is moving towards a reclined symposiast. If indeed there is something in the figure's hands, iconographically an idiophone would be a better candidate rather than a jug proposed by Culican, and organographically a clapper is more probable than castanets, as he has suggested (1986 b, 585). In any case, it is most probable that rhythm beating is indicated, either by hand clapping or by playing an idiophone, as part of a complete musical performance provided at a symposium. This combination is closer to the Egyptian iconography where rhythm keeping by hand clapping, seistron playing and cheironomy is often depicted with strings or winds (see also below, 4.6.1 Cheironomy).

Type B: Hands above head (snapping fingers or clapping) (Fig. 4.61):

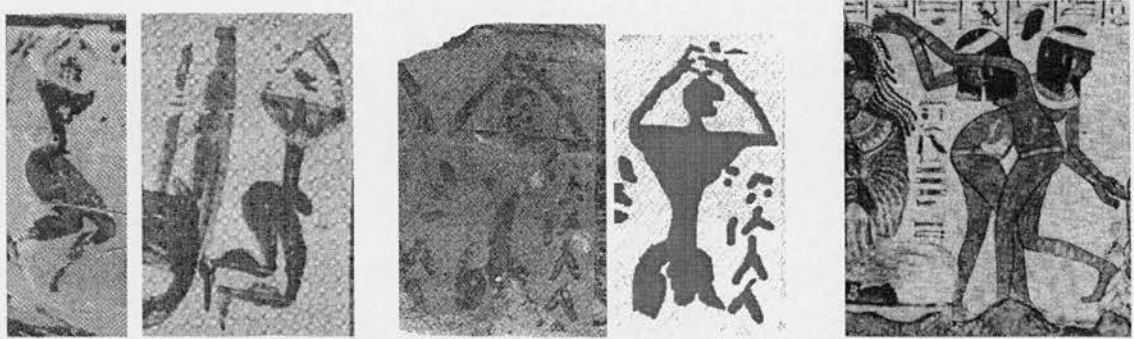
(VP) **6) Kantharos.** NMA Inv. No. 14447. From Athens, tomb at Anavyssos.

44) Skyphos fragment. Eretria Museum Inv. No. 11310. From Eretria.

The dancer of Cat. 44 and the third dancer of Cat.6 are depicted making a leap with the hands raised above the head. The giant lyre on Cat.44 recalls the lyre playing of Cat. 6 and indicates that the two scenes must have a similar performance context. On the former the hands overlap, whereas on the latter they are carefully rendered in close proximity with each other. A similar representation can be seen on a LG fragment from Artemision at Delos (Dugas & Poulsen

³⁶² *Coroplastic iv* 133 no. III(i)2 and Blinkenberg 1931 respectively; however, both also suggest that the figures could be clapping hands.

1911, 358-9 no. 21), showing two dancing figures with arms above the head, elbows bent and an attempt to shape open palms with fingers (Fig. 4.61a); the leap is omitted here and we don't know if a lyre was intended.³⁶³ The same pose of hands raised above the head is depicted on a 7th century steatite pendant from Delion at Paros that shows two figures dancing the Geranos; at the back side a circular labyrinth is represented (*Dons* no. 110).³⁶⁴



Cat. 6

Cat. 44

a.

(drawing)

b.

Fig. 4.61: Hand clapping Type B. Cat. 6, 44. a) LG fragment from the Delian Artemision and drawing of dancer (Dugas & Poulsen 1911, fig. 14). b) Dance on an Egyptian fresco from the Tomb of Nebamun. 1425-1375 BC (after *MiB-Ägypten* fig.38).

The careful rendering of the hands on Cat.6, 44 and on the Delian fragment, either overlapping or approximating Type A, suggest that hands above the head are also marking the beat in some way, most probably by clapping. On an enchanting Egyptian dance performance from the abovementioned Tomb of Nebamun an identical position of the hands is acquired by one of the female dancers (Fig. 4.61b) who, according to Hickmann, is also snapping or cracking rhythmically her fingers (*MiB-Ägypten* 66).

The gesture of raising both hands *above* the head is often seen as a variation of the standard lament gesture with both hands placed right *onto* the head, commonly found on the LG prothesis scenes (Ahlberg 1971, 261). The evidence from Cat.6, 44 and the comparative material discussed here indicate that the two gestures are not identical, but the former is clearly a dance movement. The occurrence of figures (usually females) with hands raised above their heads in prothesis scenes has led scholars to think that they perform a funerary

³⁶³ Dugas & Poulsen interpret the gesture as a sign of lamentation. Contra Wegner, who suggests hand clapping (*MusikTanz* 23, cat. no. 116).

³⁶⁴ Paros Archaeological Museum Inv. No. 1590. The geranos was a maze dance performed in honour of Delian Apollo and enacted the escape of Theseus from the twists and turns of the Knossian labyrinth; like many other maze dances, it may have originated as an imitation of the winding path of a serpent, with chthonic-regenerating connotations (Lawler 1964, 45-8).

dance imitating lamenting gestures (*MusikTanz* 44 ff.).³⁶⁵ The raising of both hands above the head is a common Egyptian dance gesture acquired by male and female dancers with stiff ceremonial poses, which are also accompanied by figures clapping hands.³⁶⁶ Unlike earlier scholars that consider them to be funeral dances emanating from the natural mourning and grieving gestures (Lexová 2000, 36-9), modern studies stress the fact that they were part of extended festive musical scenes that usually decorate Egyptian tombs as means of entertainment and aid to the ultimate rebirth of the deceased; therefore their strictly funerary character is now questionable (Manniche 1991, 24).³⁶⁷

The recurrence of the hand position with the prothesis in Greek iconography leaves little scope for a non funerary interpretation. However the dance (and the gesture) may eventually carry positive symbolism as a wish for regeneration, a meaning that agrees with the significance of the *geranos* dance shown on the Parian pendant, and is also compatible with the leap dancers of Cat. 6 and 44. Furthermore, the Parian pendant alludes to a ceremonial performance context without funerary connotations and the leap dancers of Cat.6 and 44 suggest festive and entertaining acrobatic dances (Ahlberg 1987).

Type C: Hands lower at front (Fig. 4.62):

(VP) 20) **Neck amphora: male dance, clapping, auloi.** Düsseldorf, private collection.

Attic, nknwon provenance.

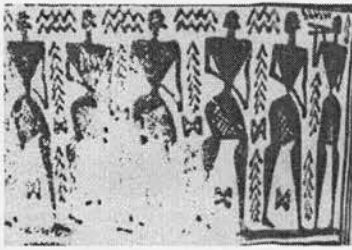
29) **Hydria neck fragment.** Berlin, Staatliche Museum, Inv. No. 31573 A1. From Aegina.

(C) 99) **Standing male with moveable legs.** MMNY 74.51.1692. From a tomb at Ormidhia, Cyprus.

³⁶⁵ Examples of both hands raised above head in prothesis scenes: oenochoe *Louvre*, CA 3283 (*Rombos* cat. no. 346, pl. 13b, Ahlberg 1971, fig. 47:d), crater *Louvre* CA 3445 (*MusikTanz* cat. no.132, fig.4e).

³⁶⁶ See Manniche 1991, fig. 11 and numerous examples from the Old Kingdom to the Saitic period in Lexová 2000.

³⁶⁷ Note that the raising of both hands *above* the head is *not* encountered in Egyptian prothesis scenes along with the standard mourning gestures with hands *onto* the head.



Cat. 20



Cat. 29



Cat. 99

Fig. 4.62: Hand clapping Type C. Cat. 20, 29, 99

On Cat. 20 and 29 we are confronted with files of males accompanied by an aulos player. A similar representation but without the musician can be seen on an attic geometric amphora in Munich with the palm and fingers clearly indicated, in a way similar to the Copenhagen Kantharos (Cat.5) or the abovementioned Agora fragment P10201a.³⁶⁸ Both Cat.20 and 29 were destined for funerary use as indicates the presence of plastic snakes at the neck and shoulder of the vases. It is reasonable to suggest that a funerary dance would be depicted on such artefacts, possibly a dance practised at the funeral of an exquisite member of the community as implied by the file of chariots and warriors depicted at the body of Cat.20. The difference in hand position towards the earth combined with the stiff posture and ceremonial pace of the dancers point towards a sombre and serious character of hand clapping, possibly as a discreet rhythmic accompaniment to mourning.³⁶⁹

The same hand position is often acquired by CA:I-II terracottas with small clay discs between the hands, interpreted as cymbal players. This similarity is an additional indication that sound production was intended even when no instruments are used or depicted, and it is beyond doubt that hand clapping can substitute with a subtler acoustic result for the more profound sound of metal cymbals. The standing male terracotta figure in Cat.99 can be puzzling as to whether it depicts hand clapping or cymbal playing with the thin clay-disc representing cymbals between the hands missing. Karageorghis mentions that a restored disc has now been removed from between the hands (2000, 148 no. 228), which thus leaves the figure open to interpretation. The terracotta is said to have been found in a tomb and if hand clapping is

³⁶⁸ Amphora, Munich, Arch. Mus. d. Univ. Inv. No. 272, *MusikTanz* 23, cat. no. 114, Pl. Uv.a

³⁶⁹ Note that in Iliad 23.102 Achilles is clapping his hands as an indication of mourning, "Ἀχιλλεύς χερσὶ τε συμπλατάγησεν, ἔπος δ' ὀλοφύδονον ἔειπεν". Compare with the lower position of hands accompanying Egyptian ceremonial dances with similar stiff poses, interpreted by Lexova as funerary (Lexová 2000, 36, fig. 3).

intended rather than cymbal playing, then it could be inferred that Cypriote and Athenian iconography bear similarities in their funerary performances by the end of the 8th century BC.

4.6 Rhythm visualised

Representing rhythm visually can be done in two ways. a) Firstly, by representing the act of beating the rhythm. b) Secondly, by somehow translating the temporal element into a different language of patterned motifs.

The depiction of idiophones and related rhythmic gestures such as hand clapping and feet stamping have an immediate visual impact to the viewer as reminders of rhythm and the familiar experience of the sound effects without prescribing particular rhythmic patterns. Furthermore, it is reasonable to suppose that the artist would attempt to stir memory and invoke the musical experiences of the viewer by depicting characteristic movements specific to a particular dance or a performance context, so that the viewer could identify them and thus recall the lyric and the rhythm that has already been experienced. Hence, dance formations (schemata) on LG vase paintings may reflect to certain extent the kind of rhythms that the chorus was performing to (solemn or vivid, performed in group or individually etc.), although they remain essentially frozen snapshots of movement with no specific metric information.³⁷⁰

As regards the second aspect, we have already referred to the rhythm of artefact structure and the fact that it reflects the “eurhythmic” values of its era. Based on the same principal, some scholars maintain that the acoustic experience of a music event or even a specific rhythm can be reproduced visually by the artist in the way that he organises the ornamental zones or the pictorial iconographic motifs. It has been suggested that the repetitiveness of animal friezes and the regularity with which the geometric motifs are applied on the surface of LG vases fundamentally express the experience of rhythm in rituals as well as in dance and musical performances (Seebass 1991, 13). Strictly structured pictorial arrangements in A-B-A or similar forms instantly evoke comparisons with lyric or with the formulaicness of epic poetry. In this light, Myres has claimed that the composition and grouping of figures on a silver bowl from Amathus (*BM Inv. No. W.A.A.123053*) echoes a daktylic or anapaestic rhythm (Myres 1933); similarly, Younger saw in the composition of the Minoan Harvester Vase the vivid reflection of the marching 2-beat rhythm of the song they paraded to (*Aegean*, 6 ff.). Such

³⁷⁰ Dance representations are beyond the scope of this work and for the views expressed here I rely on detailed studies by Crowhurst 1963, Webster 1970 and Naerebout 1998.

interpretations pre-suppose the conscious effort on behalf of the artist to crystallize a specific rhythm or music genre, an attractive hypothesis for certain artefacts, but hardly a possibility for the bulk of musical representations. In addition, the deciphering of musical rhythms that have been transformed into a visual-pattern organisation is a rather sophisticated process to be followed instinctively by the viewer, both ancient and modern, unless there is a specific reason that he or she would be expected to do so. This is the case for cheironomy, the final and most sophisticated way of visualising rhythm.

4.6.1 Cheironomy

Egyptian artists have gone in great lengths to depict rhythm by representing the exact hand movements that provided rhythmic diction. These gestures were performed by the cheironomist who instructed rhythm and melody to the musicians. Egyptian representations of the Old and Middle Kingdom often depict musicians playing under the guidance of the hand movements of the cheironomist (Hickmann 1949a; Manniche 1991, figs. 11-17, 19). Rhythmic execution is not easy and demands ingenuity and precision; in order to ensure efficient execution Egyptian cheironomists would also instruct rhythmic hand clapping and *seistron* playing (*MiB-Ägypten* 50). The rhythm marked by the hands usually follows the accents of the song.³⁷¹

The practice of cheironomy survived and flourished through Greek, Roman and early Christian periods. It is still employed in Coptic and Jewish liturgy as well as in South Asian Hindu rituals (*NGDMI i*, s.v. “Cheironomy”). The study of modern Coptic cheironomists by Hickmann reveals a number of gestures that can also be seen on ancient Egyptian iconography. A stroke on the thigh (or over the opposite hand) with the palm open and parallel to the ground signifies a downbeat or thesis (Fig. 4.63a). The combination of left and right hand brought together indicates beating the rhythm on an instrument, like the tambourine for instance. Snapping and pressing the fingers consecutively against the thumb indicates counting beat (Fig. 4.63b). This gesture, complemented by hand clapping, is still used in the

³⁷¹ Hickmann explains: “Chaque division des notes composant la mélodie trouvait dans ce cas sa réplique dans les battements de la main. Quelquefois, la main marquait seulement le temps fort, de manière qu’entre plusieurs battements marquant la mesure un grand nombre de notes et de rythmes se développait” (1949a, 421).

Middle East and India for counting rhythm; it is also depicted in Greek and Roman iconography (see below).³⁷²

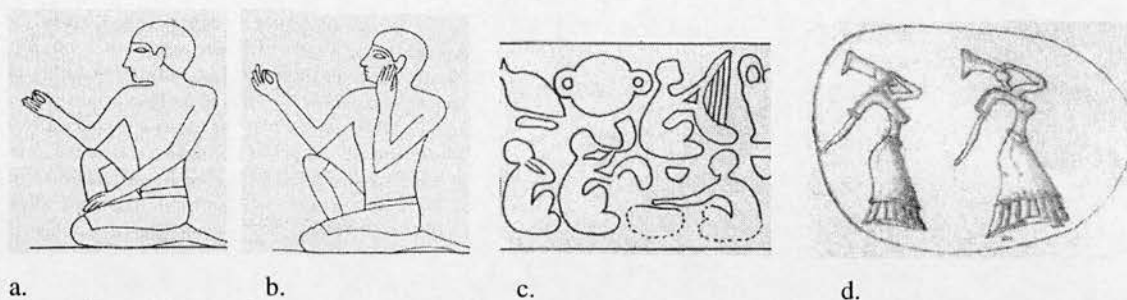


Fig. 4.63: Cheironomic gestures. a) Egyptian representation of down beat (thesis) and counting rhythm with fingers (after Hickmann 1958, fig. 24). b) Egyptian professional singer counting rhythm and singing with hand covering the ear (after Hickmann 1958, fig 18b). c) Singer with hand covering the ear on Elamite sealing with music ensemble. From Tchoga Mish, 4th millennium BC (after Spycket 1972, fig. 2). d) Possible Minoan rendering of hand covering the ear. Clay sealing, *HMs* 486/1-4 (after *CMS* II.6.13).

Hickmann suggests that idiophones were introduced as an extension of the hand so that rhythm would be expressed more precisely. Egyptian clappers reveal their connection with cheironomy and rhythm as they are given the shape of hands with open palms. Similarly, the hieroglyphic sign of “bent forearm” and its variants obviously derived from cheironomy, and probably more specifically from rhythmic gestures for downbeat and counting beat. Therefore, according to the context and combination with other signs, it qualified for the meanings of “beating the rhythm”, “making music” and “singing”, a rather surprising choice of body part for vocal representation (Hickmann 1958, 121 ff.; Manniche 1991, 30).³⁷³ What makes this leap possible is the fact that, in Egyptian texts, the cheironomist is reported to be singing. In the Coptic tradition, the cheironomist bends his arm to cover the ear with the left hand as he strives for a better awareness of his voice; this gesture is also made by ancient Egyptian cheironomists thus revealing their status as professional singers (Fig. 4.63b).³⁷⁴ The same gesture is seen on a much earlier sealing of the Elamite period from south-west Iran,

³⁷² Melodic signs indicated both pitch and melismatic ornamentation, the former by elevating or lowering the arm and the latter by constructing the palm in a rounded shape. Holding the thumb and index finger together represented the lower note of an interval, probably that of the 5th (melodic centre and its dominant note) whereas the upper note was indicated by outstretching the palm. Upper or lower octave seems to have been marked by lifting the elbow into the air or by supporting the elbow on the knee (Hickmann 1949a; 1958; Hickmann 1996; Manniche 1991, 30 ff; *NGDMI* i).

³⁷³ Hickmann emphasises on the rhythmic accompaniment of chant: “Il est fort intéressant de relievier un fois de plus le rôle que le signe hiéroglyphique, représentant l’avant-bras, joue pour déterminer le chant, mais aussi tout action d’accompagnement rythmique du chant (par le battement des mains ou par le battement des instruments de percussion)” (Hickmann 1949a, 421). As a synecdoche to rhythm, the bent-forearm sign can also rarely denote “dance” (Mikrakis 2000, 166).

³⁷⁴ The gesture is still attested today among some African tribes when singing or playing a wind instrument (examples in Collaer & Elsner 1983, 67 ff., fig. 52-5; Hickmann 1949a, 421 ff.).

indicating an ancient and well established practice (Fig. 4.63c; Spycket 1972, 158) It is therefore not surprising that the generic sign of “bent forearm” deriving from gesticulation made by a singer/cheironomist could be taken as *pars pro toto* for both song and musical sound.

4.6.1.1 Iconography and motifs: Bronze Age

Bronze Age Aegean iconography does not provide us with such factual information and explicit visual signs of rhythm. The exact meaning of Minoan-Mycenaean gestures is not completely understood and neither is uniformity in interpretation; opinions vary and what some scholars perceive as “dance” for instance, others describe as “salute”. In Minoan glyptic we can observe bending of the elbow to various degrees (Wedde 1999, types G3-G5), with the hand at different height levels. Often the hand reaches to the head, in some cases apparently touching the forehead, which is also depicted on bronze and terracotta figurines and interpreted as an adoration gesture.³⁷⁵ When the “bent arm” gesture is acquired by groups of women engraved on seal stones, it is often interpreted as dancing, irrespectively of the degree of bending (German 1999).³⁷⁶ In some occasions the hand of one of the “dancers” seems to be placed on the side of the head rather than the forehead; it is not certain, however whether it might cover the ear (Fig. 4.63d).³⁷⁷

There could be a hint in this detail that this particular gesture/action is different from the “arm-to-forehead” gesture and the genre of bent forearm at various degrees. Given that in most cases the pictorial contexts for this genre of gestures has been characterised as that of divine epiphany or dance, it might be worth exploring the possibility that cheironomical mimetic gestures accompanying singing were employed as part of the invocation or the performance. But it is a far cry to parallel them to the well defined Egyptian cheironomical depictions.

Minoan hieroglyphic signs are similarly obscure. The Minoan sign of “bent forearm” has not been related to the Egyptian.³⁷⁸ Instead, the sign of two “crossed arms” bent at the elbow with

³⁷⁵ Sapouna-Sakellarakis 1995, 110, gesture type F for metalwork. Wedde’s gesture type G5 for glyptic, expressing his doubts regarding this interpretation (Wedde 1999, 914 ff., pl. CCX).

³⁷⁶ For example, CMS I.86, I.191, II.3.51, II.3.169, II.3.236, Vsupplement.1B.113-5.

³⁷⁷ See German 1999, pl. LXb-c (CMS II.6.13, I.313) and Wedde 1999, pl. CCXI:7, 11, 12 (Giamalakis Coll. 3436, HMs86/1-3; 489/1-2 (CMS II.6 no. 13), Ashmolean 1938.1129); all show two females facing right, back arched, right arm stretched behind, left arm bent touching the side of the head. See also CMS I.108, II.3.17, Vsupplement.1A.58.

³⁷⁸ For the sign see Evans 1909, 183, sign 8; Kenna 1960, nos. 151c and 165c; Younger 1993, 105.

open palms (*CHIC* 006) is found three times along with the “seistron” and one along with the “lyre” signs in a total of twelve representations (Fig. 4.64a).³⁷⁹ Therefore, it has been suggested that it has musical significance and that the hands may stand for the musician playing the instrument (Platon 1966, 217, n. 27). Both gestures (bent arm and open palm) are part of the repertoire of ancient Egyptian cheironomy. Evans believed that the Minoan sign was an ideogram taken from gesture language (1909, 183 no. 7), but Olivier and Godart proposed that it is a logogram, which means that it is a morpheme (word or phrase) and not a symbol of the thing itself.

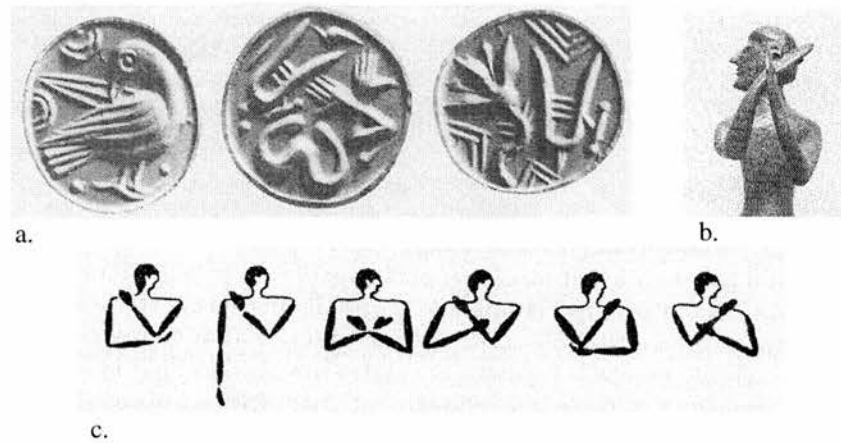


Fig. 4.64: a) MM seal with “seistron”, “saffron flower” and “crossed arms” syllabograms (after *CMS* XI.12). b) Olympia bronze decorating the handle of a tripod; on the other handle, the Minotaur (after Moustaka 1982, pl. 4). c) Set of Egyptian cheironomical gestures of uncertain meaning, including that of the crossed arms (after Hickmann 1958, fig. 41).

If the sign originally started as an ideogram expressing a musical concept or practice, it is reasonable to look for analogies with the concept behind the Egyptian “bent forearm” sign. The Minoan sign might derive from similar cheironomic gestures and in analogy with the Egyptian sign it could suggest singing along with rhythmical diction and performance. In two instances, the “lyre” (*CHIC* 092) and “seistron” (*CHIC* 057) signs found together with the Minoan “crossed-arms” may denote musical performance conducted by the cheironomist/singer. Equally, the “palace” sign (*CHIC* 041) offers another plausible context for song and dance performance. Rhythm keeping and song can be easily related to the “seistron” (*CHIC* 057) and “saffron flower” (*CHIC* 023) signs that are found together with the Minoan “crossed-arms”, suggesting labour or religious activities accompanied and regulated

³⁷⁹ For the sign see *CHIC* 322; Evans 1909, 183, sign 7; Younger 1993, 105. Occurrences: *CMS* IV. 135b (3-sided prism, Younger 1993, 46), XI.12b (3-sided prism, Younger 1993, 51; 1998, 80 cat. 70), XII.107c (4-sided prism, Younger 1993, 52), Kenna 1960, no. 98b (3-sided prism, also *PM* i, 196, fig. 143c-d), Evans 1909, P85a.

with rhythmical singing. In the case of the jasper seal with the U-shaped “seistron” sign appearing twice (Fig. 4.64a), the combination of cheironomy/song with seistron playing brings to mind the Harvester Vase that depicts simultaneous song and seistron performance.

This attractive interpretation, however, remains tenuous for two reasons. Firstly, because recent scholarship has attributed syllabic and not ideogrammatic value to the “crossed arms” sign (Olivier 1990). Secondly, because this sign cannot be matched with any of the verified cheironomic gestures discussed above and thus its meaning is ambivalent. The Egyptian equivalent of crossed forearms is interpreted by Hickmann as one of the gestures for paying respects, although he does not exclude the possibility that it could have rhythmic or choreographic significance (Fig. 4.64c; Hickmann 1958, 120 fig. 41). But on an Akkadian stone slab this gesture is acquired by a figure standing in front of an arched harpist and is thus interpreted as dance gesture (Dumbrill 1998, 189 pl. 9). In Bronze Age Aegean iconography the gesture is only acquired by few isolated figurines, a fact that does not shed light to its meaning.³⁸⁰ Crossed arms identical to the Minoan sign are seen on EIA bronze figurines, for instance on the 8th century male figure decorating the handle of a bronze stand from Olympia (Fig. 4.64b), probably opposed by the figure of a Minotaur placed on the other handle (Schweitzer 1971, 139, pl. 151); here again the lack of narrative obscures the meaning of the gesture.³⁸¹

Cheironomy is seldom depicted outside Egypt of the Old and Middle Kingdom. The identification of the singing gesture with hand covering the ear on the Elamite sealing speculated by Spycket (Fig. 4.63c) is an isolated example; equally rare are instances on Babylonian seals with seated figures holding a baton and instructing a file of dancers or musicians (Kilmer 1995, 2609). In general, proper representations of cheironomists in the Egyptian model are not found in Minoan, Mycenaean and Mesopotamian music scenes. However, here are tentatively suggested a few examples of rhythm beating and conducting in Bronze Age iconography approximating the Egyptian concept of cheironomy:

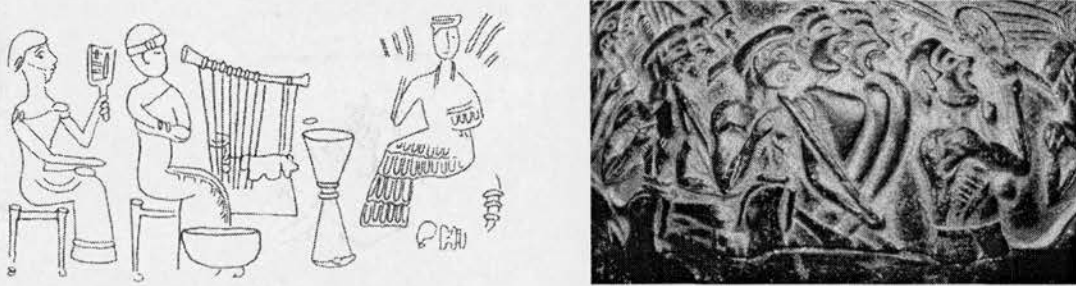
Mesopotamia

On a cylinder seal impression from the Akkadian Period (2350-2170 BC) a seated, long-robed seistron player is depicted with the right arm in the common downbeat gesture (beating the

³⁸⁰ It is found on a MM:III-LM:IA bronze figurine from Agia Triada (Verlinden 1984, pl. 35 no. 76); a close parallel is a terracotta figurine from Piskokephalo with the right arm on the opposite shoulder and the left hand on the opposite wrist, but not crossing over (Sapouna-Sakellarakis 1995, pl. 40.4).

³⁸¹ For another similar figure from Olympia see Moustaka 1982.

knee, palm open and parallel to the ground), possibly instructing rhythm to the other two musicians of the ensemble, a lyre and hourglass drum player (Fig. 4.65a; *MiB-Mesopotamien* 65, fig.42; Dumbrill 1998, 424 pl. 13, same 442 pl. 88).³⁸² This view is supported by an earlier representation decorating the side of the lyre from Ur dated at the First Dynasty (ca. 2450 BC); here the lyre playing is regulated by a seated seistron player, who is also beating with the left hand an object seen in side-view and placed on the lap, which scholars have interpreted as a round or square tambourine (*MiB-Mesopotamien* 40, fig. 8). The posture and gesture of the seistron player is identical to that of the Akkadian seal.



a. b.
Fig. 4.65: Possible cheironomic gestures. a) Thesis movement with the right hand of the seistron player on an Akkadian seal showing a music ensemble. 2350-2150 BC (after Dumbrill 1998, pl.88). b) Detail of the Harvester Vase with musician playing the seistron and conducting the song. From Crete, Agia Triada, NW quarter, Room 4. LM:IB. HM Inv. No. M.H.184 (after Dons 109).

Crete

In contrast with the Mesopotamian examples, the seistron player on the Minoan Harvester Vase from Agia Triada (LM:IB) is marching and singing along with a group of three singers behind him (Dons 109-110; *PM* ii, 47 and iv 218; Forsdyke 1954; *Aegean* 74 cat. no. 53; also previous chapter 4.3.2). He has his left elbow bent, the forearm elevated vertically and the palm apparently closed (Fig. 4.65b). The gesture resembles that of the other marching figures depicted on the vase, but it is not an exact duplicate, and it seems to be addressed to the three following singers. The song performance context and the similarity of the arm-palm position to the cheironomic gestures already described, both strengthen the hypothesis that the singers were conducted by the seistron player with additional cheironomical gestures (a view also shared by *Aign* 42, cat. II/9). Many scholars have unequivocally commented on the strong rhythmic element of this particular representation and some have hypothesised that a 2-beat marching rhythm (Mikrakis 2000, 166) or even an antiphonal song was performed (*Aegean* 6 ff.); the latter would definitely benefit from some form of conducting. The Minoan gesture

³⁸² On another seal impression a similar gesture is made by a figure standing behind the player of a giant lyre and the rhythm might also be accentuated with dance movements implied by the energetic

could be compared with a later Egyptian painting from tomb 51 at the Theban Necropolis (ca. 1300 BC), where a female seistrion player is also raising her left hand (open palm) to instruct two other seistrion players that follow her carrying papyrus branches (*MiB-Ägypten* 51, fig.26).

It is worth noting that, in the Mesopotamian and Cretan examples the plausible cheironomical gestures are carried out by a seistrion player conducting an instrumental or singing ensemble. This element links them with the Egyptian representation of a cheironomist instructing seistrion players that we have already mentioned, and suggests that at least one common cheironomical practice was known in Egypt, Mesopotamia and Crete since the Bronze Age. However, the difference in chronology and the diversity of iconographic motifs among these areas indicates that they were inspired by local practice under different circumstances, without directly copying each other or the earlier Egyptian prototypes. On the whole, however, explicit representations of a conductor are rare and ambiguous in Bronze Age Mediterranean.

4.6.1.2 Iconography and motifs: Early Iron Age

Noticeably, cheironomy is omitted from Egyptian iconography of the New Kingdom, which otherwise copies the elements of earlier musical scenes. During the EIA, hand clapping (discussed in chapter 4.5) is the basic gesture that offers some sort of rhythm-control over the musical performance, although in most instances it appears as part of the dance and is not instructive. Nevertheless, in analogy with the evidence from the Harvester Vase seistrion player, a similar conducting gesture may be recognised in the bent and raised left arm sometimes observed in EIA vase painting (Fig. 4.66):

- (VP) 15) **Oenochoe**. *Copenhagen* Inv. No. 9367. Atic, unknown context.
18) **Oinochoe**. *Copenhagen* Inv. No. 7307. From Athens, Dipylon.
19) **Pithoid jar**. Thebes Museum Inv. No. BE469. From Thebes.

The bent and raised left arm of the central seated female figure on Cat. 18 gives that figure a prominent role and sets it apart from the repetitive figures of the rest of the file (as already suggested in chapter 4.1.2.2). Nevertheless, the iconographic details of Cat. 18 do not provide secure evidence for the musical character of the action carried out by the seated figures and it is only via its connection with the Rattle Group that a musical association is inferred. The only musical activity that can be suggested for this scene is singing by a female chorus. The central figure's raised hand is modelled differently from the others, but its V-shape with short strokes

stride and backward flicking of the knee seen on both figures (Dumbrill 1998, 249 pl. 11).

is very sketchy to be recognised with certainty as cheironomic gesture or the playing of an instrument (clapper).



Cat. 15

Cat. 18

Cat. 33

a.

Fig. 4.66: Possible cheironomic gestures in EIA vase painting. Cat. 15, 18, 33. a) Prothesis scene; beside the bier stand two figures, raising one and two arms (palm and fingers marked) respectively, followed by a file of males in mourning gesture. *Louvre*, CA 3283 (after Ahlberg 1971, 47:c).

In Cat. 15 and 33 however, the musical context of the gesture is certain with the inclusion of rattle and lyre players respectively in the scenes. In Cat.15 a figure seated in opposite a rattle player raises and bends the left arm, bringing the right hand near the thigh, recalling the Egyptian gestures for beating the rhythm that we have already discussed; the musical significance of the gesture is strengthened by the fact that a rattle and lyre ensemble is included on the left part of the scene, behind the cheironomist. In Cat.33 the gesture of bending and raising the arm is made by the small scale male figure placed below the lyre and therefore coupled with the musician; it is clearly addressed to the female chorus of six women and a little girl facing towards them. The attention to the depiction of the boy's palm and fingers is remarkable when compared with the hands of the rest of the figures, and it indicates that this part of the body was important for the understanding of the action, probably alluding to the particular cheironomical movements of the fingers already described.

A cheironomic character has also been hypothesized for the similar raising of one hand (elbow bent) in prothesis and ekphora scenes, a gesture "either denoting a farewell-saying or the conducting of the chorus sung or spoken at the funeral" (Ahlberg 1971, 265). The latter view is relevant especially when the gesturing figure appears before a processional group that may be interpreted as a chorus (Fig. 4.66a).³⁸³ The suggestion is interesting, but Ahlberg herself is more inclined to interpret the gesture as bidding farewell and mourning (the bent and raised arm is often combined with the mourning gesture of hand-on-head), as the figures bearing this

³⁸³ Prothesis scene, *Louvre*, CA 3283. Beside the bier stands a figure raising both arms (palm and fingers marked) and next to it another figure raising only one arm, followed by a file of males with swords in mourning gesture; on the other side a file of females with hands above the head (Type B).

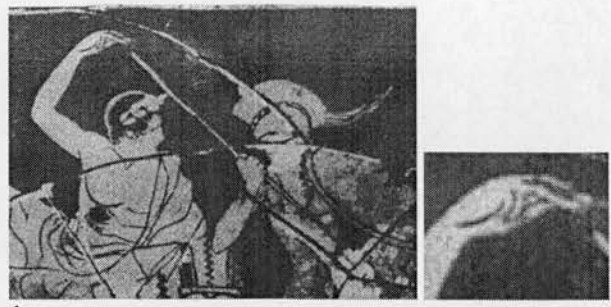
pose are not necessarily leaders of the dance groups but appear to be more associated with the bier (see for instance her figs. 33, 43 and especially 46 where the gesturing figure is placed in a separate panel from the chorus). As with the scene on Cat. 18, it is not clear whether the bent and raised arm in the prothesis and ekphora scenes can be interpreted as a cheironomic gesture. Although the performance context makes the suggestion plausible (patterned mourning at the funeral of a prominent individual), the syntax of the compositional elements leaves doubts for an unquestionably musical character of the gesture. On the whole, the long tradition of the bent and raised arm in Aegean Bronze Age art and our inability to decipher its meaning with certainty in the earlier iconographic strata (as shown by Wedde 1999 for gestures G3-5 of his typology) entail that we should be cautious and speculative in our interpretations. Nevertheless, its recurrence twice in a secure musical context from both the Bronze and the Iron Age is encouraging for our hypothesis.

The bent and raised arm is also found in later representations of finger snapping. In the classical period, rhythm keeping by snapping the fingers is occasionally depicted on vase representations of the *pyrrhiche* dance, like for example on a red-figure Hydria from the Group of Polygnotos in an American private collection (Fig. 4.67a; Poursat 1968, 590 no. 37, fig. 42). The dancer is shown in a vivid stance facing a seated aulos player on his left; while a standing female behind him raises her right elbow and apparently snaps her fingers to beat the rhythm, or is counting the rhythm by pressing the fingers against the thumb in the old Egyptian manner, a fact that might be suggested by the extended forefinger shown on the representation. In another instance finger snapping is done by the reclined symposiast that attends the pyrrhiche dancer and thus participates in the music happening (Fig. 4.67b; Poursat 1968, 602 no. 53, fig. 58).³⁸⁴ But the majority of Greek dance representations include a percussionist rather than a cheironomist.

³⁸⁴ Athenaeus comments that the dance of two young men at the court of Alcinous is accompanied by the snap of forefingers from other youths standing by (*Deipn.* 1.15c-d; Fitton 1973, 273). From the Roman period we also have a proper cheironomic scene on a wall painting from Herculaneum, with an aulos-and-lyre ensemble conducted by a seated female singer facing the musicians (*MGG iii*, 540 fig. 2).



a.



b.

Fig. 4.67: Counting beat and snapping fingers in the classical period. a) Pyrriche dancer with maiden counting beat snapping fingers, and finger detail. Red-figure Hydria, 440 BC. Private collection (after Poursat 1968, fig. 42). b) Pyrriche dancer with reclined symposiast snapping fingers and finger detail. Bell shaped krater from Thebes (after Poursat 1968, fig. 58).

The sudden disappearance of cheironomy from New Kingdom representations has puzzled scholars, and its sporadic depiction throughout the 1st millennium is in contrast with the historical fact that it was a well established and widespread practice. It has been suggested that cheironomy was not essential for performance, and that the excessively detailed depictions of the Old Kingdom resulted from Egyptian beliefs regarding the Afterlife; in particular, the artists were employed to create images of what would serve the deceased after death and, among other commodities, they strove to represent the sounds of music so that the deceased could enjoy it after death. For this reason they deliberately included the cheironomic gestures in their music scenes as a kind of musical notation (Hickmann 1961, 14; Manniche 1991, 30; Hickmann 1996, 7).³⁸⁵ This could explain why cheironomy is not a fundamental part of the broader ancient musical iconographic repertoire, despite its wide diffusion in the Greek and Roman world which is reported in literature.

For some scholars, the lack of a written system of musical notation automatically implies the use of cheironomy to teach and dictate music.³⁸⁶ The need for some sort of gestures to direct the choral and musical performance during theatrical performances has also been pointed out (Anderson 1994, 119). The Romans admitted to having taken their gesture system for instruction and pantomime from the Greeks, but no information regarding the particular Greek

³⁸⁵ Compare with the “*neumata*” of Byzantine musical notation, which are thought to derive from medieval cheironomical gestures as practical visual reminders of the melody (Hickmann 1949a, 418).

³⁸⁶ This has been proposed by Braun 2002, 71 for Bronze Age Canaan and by Anderson 1994, 60, 105 for Greece, as in the latter there is no notation system before the 4th century BC. Landels suggested that the need for rhythmic notation emerged because of the “new music” with its prevailing of melody over word-metre (Landels 1999, 110). It has been recently proposed that the melodic Greek notation derived from the ancient Egyptian hand movements (Hickmann 1996, 13).

cheironomic system survives, apart from rare depictions already discussed.³⁸⁷ When mentioned in ancient sources, cheironomy has the broad meaning of expressing oneself by moving hands or feet rhythmically and is more readily associated with dance.³⁸⁸ In particular, the word χειρονομία (*cheironomia*) was an alternative name for πυρρίχη (*pyrrhiche*), the warrior dance which was apparently quite energetic (Athenaeus *Deipnosophistae* IV.631c). The two classical scenes that we examined corroborate the fact that there was a connection. It is evident that the idea behind Greek and Roman cheironomy was a long tradition of gesture which is nevertheless obscure to us, possibly mimetic and definitely connected with counting rhythm and marking the beat, which eventually became assimilated with dance and pantomime.³⁸⁹

³⁸⁷ Elworthy provides a list of Roman gestures for counting numbers which are said to derive from the Greeks system, but there is no apparent musical association (1970, 236 ff).

³⁸⁸ Herodotus *Hist.* 6.129.15, “ὁ Ἴπποκλείδης...τοῖσι σκέλεσι ἐχειρονόμησε”; Aristotle *Fragmenta varia* 8.44.583.11-5, “Συβαρίτας λόγος ὡς παρὰ δεῖπνον εἰς τὸ συμπόσιον αὐτοὺς (τοὺς ἵππους) εἰσάγειν, τοὺς δ’ ἀκούσαντας ἀλλήματος ἀνίστασθαι ἐπὶ τῷ πόδε καὶ τοῖς προσθίοις ὥσπερ χειρονομούντας ὀρχεῖσθαι”; Xenophon *Hist. Symp* 2.19.7. See also Michaelidis 1989, 350; Fitton 1973, 261; *GMW i*, 291, n. 157. Also compare with the combination of meanings for the Egyptian hieroglyph discussed above.

³⁸⁹ A similar observation has been made for the Yemenite tradition where the cheironomic signalling is not so much prescriptive as descriptive and imitative because it follows *after* the chant (*NGDMI* s.v. “cheironomy”).

5. Membranophones

5.0 Classification and terminology

Instruments that are sounded by means of a taut membrane are classified as membranophones. They belong to Sachs' middle stratum which comprises instruments that occur as early as the Neolithic period in several continents, but are not universal (*History* 63; Blades 1984, 48). Many variations are found across the world; membranes are commonly set in vibration by percussion (struck membranophones), but there are also instruments that are plucked (the vibrations of a plucked string are transmitted to the membrane) or sounded by friction. Only the former class of *percussion membranophones* is so far attested in the Eastern Mediterranean (*Hornbostel-Sachs* 17-19; *Survey* 117 ff.).

This large instrument class comprises many varieties, but only two are found in the Eastern Mediterranean and the Near East¹:

(a) Kettle drums, where the membrane is stretched over a bowl-shaped or ovate shell, usually made of pottery or wood which acts as a resonator.

(b) Tubular drums, where membranes are stretched over one or both ends of a tubular body which acts as a resonator. This category includes many types according to the shape of the body (cylinder, cone, barrel, hourglass). It can be subdivided into those which have a single skin and are open-ended, a single skin and are closed, or those with a double skin (*NGDMI* i, s.v. "Drums").

(c) Frame drums, where the membrane is stretched on a wooden or metal frame and it can either be fixed permanently or tuned by altering the tension. The frame can be circular or rectangular. Most frame drums are single headed and are held by the rim.²

The leather skin (head) is nailed, glued or laced onto the body. The membrane determines the acoustics of the instrument whereas the body acts as resonator; its tone gets deeper as the

¹ For discussion of Mesopotamian and Egyptian/Arabic types and nomenclature see Galpin 1937, 1 ff. and Hickmann & Stauder 1970, 61-3, 218-9 with further references.

² Most body shapes are attested iconographically in Neolithic and Bronze Age Anatolia, Mesopotamia, Egypt and Palestine; see Ducschesne-Guillemain 1980-1. For European Neolithic surviving terracotta kettle drums from Germany and Bohemia dated at 3000-2500 BC see *Behn* pl. 1:2, Megaw 1968, 334, pl. XV, Gimbutas 1989, 72 fig. 113 and *NGDMM* s.v. "Europe"; for Near Eastern kettle drums representations see Dumbrill 2000, 420 ff. and the following section. For barrel-shaped Egyptian drum see examples at *Behn* pl. 31:72, Ziegler 1979, 76 fig. 100 and Manniche 1991, 74, 78-9, figs. 42, 45, 47, pl. 2. See *MiB-Mesopotamien* fig. 49-55 for Near Eastern gigantic cylindrical frame drum and figs. 58-9, 91-5, 116-8, 122, 140, 150 for smaller frame drums.

diameter of the head increases, and its pitch becomes higher by tightening the membrane. Drums are usually beaten with the bare hand or hands, but performance with sticks/beaters or a combination of the two techniques is also attested.³ Mesopotamian representations depict two long beaters rounded at the top employed especially with the gigantic Sumerian frame drum with two membranes (and using two beaters) that is associated with ancient Far Eastern drums (*History* 75, pl. IV:b, c); in isolated instances a straight stick is employed with the kettle drum (see section below, Fig. 5.2b) and a long baton is used with small frame drums or tambourines (Spycket 1972, 169 fig. 15; Braun 2002, 129).⁴ The beater is again depicted in the Roman period, for instance on representations of Attis striking a large frame drum with a stick (*LIMC III.2*, 27, Attis 248), but it is not commonly found in Iron Age iconography of tambourine-playing where performing with bare hands prevails.

The Greek term denoting membranophones is τύμπανον (*tympanon*) or τύπανον (*typanon*), derivative of τύπτειν (“to beat”).⁵ It is not mentioned in literature prior to the 6th century BC.⁶ Aeschylus refers to the terrifying sound of *tympana* that is similar to the roar of a thunder heard from an underground terrain.⁷ In Pindar it is performed for the Mother of Gods (or Demeter) along with the *krotala* (*Fr.Dith.* 70b.9). *Tympana* are also played for the Mother of Gods in the respective Homeric Hymn dated at the second half of the 5th century BC. Euripides associates the *tympanon* with Rhea and with Phrygian cult musical practices.⁸

The circular and flat shape of the *tympanon* is inferred from the use of the word to describe the shape of the earth.⁹ Although these references are rather late in date and do not occur in religious-mystical texts but rather in the context of a scientific and philosophical debate, the

³ Blades describes three drum playing techniques in Africa and Asia: a) the “hand technique” which enables the player to control tone quality and pitch, b) the “hand-and-stick technique” where the hand strikes or mutes a note as required, and c) the “stick technique” involving the use of a stick in each hand, applied when a great weight of sound is required (Blades 1984, 65). Some folk kettle drums of the contemporary Arab world are played with a stick (*History* 251); modern orchestral drums are played with beaters.

⁴ See n.190 in chapter 4.2.1 for their alternative interpretation as metal gongs.

⁵ Suda *Lexicon*, s.v. “Τύμπανα”; *Realencyclopédie* 7.A.2., s.v. “Tympanum”.

⁶ Aesopus *Fabulae* 173.1.3 mentions the heavy beating of *tympana* made from the skin of an ass.

⁷ Aeschylus *Fragmenta* 10A.71a.14, “ταυρόφθογγοι δ’ ὑπομυκῶνται ἰποθὲν ἐξ ἀφανοῦς φοβεροὶ μῖμοι· τυμπάνου δ’ εἰκὼν ὥσθ’ ὑπογαίου βροντῆς φέρεται βαρυνταρβῆς”. The impact of the sound is so profound that Kybele scares off a lion with her *tympanon* playing (Simonides *Epigramata* 6.217.5).

⁸ Euripides *Bacchae* 58-59, “...τάπιχῶρι ἐν πόλει Φρυγῶν τύμπανα, Πέας τε μητρὸς ἐμά θ’ εὐρήματα...”.

⁹ Anaxagoras Phil. *Testimonia* 88.8 “πλατεῖα οὖσα καὶ τυμπανοειδῆς ἡ γῆ”; also Aristotle *Cael.* 293b.32.

comparison of the earth to the *tympanon* may still reflect a religious background, since it is repeated in references describing later artistic representations of the personified Earth withholding the winds as a statue of Hestia holding a *tympanon*.¹⁰ This type of a seated deity holding a large tambourine/frame drum [Variation (C)], usually with her left hand, is very common from the Late Classical period onwards and is usually identified with Kybele. An example of the Roman period from Delos is shown here in Fig. 5.1.¹¹ According to Blades, the association of the drum with the earth derives from its earliest form invented by primitive people; this was a skin stretched over a hole in the ground (acting as a resonator) secured in place by pegging on poles driven into the earth (Blades 1984, 49). The initial direct physical connection of the drum with earth may explain its significance as a metaphor for the earth in religious ritual. In shamanistic ritual the drum is beaten in order to invoke the earth to blossom (*History* 34 ff.). Many ancient Greek fertility cults include in the ritual the act of beating the earth with mallets or with the hands in order to evoke the chthonian deity to arise and thus make the earth thrive.¹² The symbolic meaning of this action may be reflected in the performance of the *tympanon* as a synecdoche for earth; as a consequence, the instrument becomes connected with fertility cults such as that of Demeter and Kybele.¹³ Along with the prompting of the earth to blossom comes the notion of controlling the weather phenomena.¹⁴ Tympana are also performed during the religious rites at the Idaean Cave evoking the epiphany of Zeus Kretagenes, and are associated with the Kouretes and Korybantes in connection with Dionysos and Rhea in post-classical literature (Strabo *Geogr.* 10.3.8 ff.; see chapter 4.2.1).¹⁵

¹⁰ Suda Lexicon s.v. “Γῆς ἄγαλμα” and “Ἑστία”, “γυναῖκα πλάττουσι τὴν ἑστίαν, οἶονεὶ τὴν γῆν, τύμπανον βασιτάζουσιν· ἐπειδὴ τοὺς ἀνέμους ἡ γῆ ὑφ’ ἑαυτὴν συγκλείει”.

¹¹ For more representations of this type see *LIMC* VIII.2, 507 ff., Kybele 17-20, 32-40, 42, 47 and *LIMC* III.2, 41-2, Attis 389, 397. For the cult of Kybele and her associations with Demeter, Rhea, Great Mother, Astarte and other deities see *DarSag* I.2, s.v. “Cybele”.

¹² Representations on Greek vases showing the beating of earth (among other practices) and causing the epiphany of the divinity have been collected by Bérard who also discussed this practice in detail (Bérard 1974, 75 ff.).

¹³ Analogous is Sachs’s observation that in many different cultures roundness and earth (among others) are connotations of the female sex symbolically encapsulated in the shape and performance of drums (*History* 36).

¹⁴ Thus drum playing as a means of rain and thunder invocation is a common practice in many cultures of Africa and the Near and Far East (*Survey* 118-20) and homoeopathic use of loud noise is recorded in the myth of Salmoneus who brought rain with the clanging sound of bronze vessels (Frazer 1949, 77).

¹⁵ Compare with a reference in Aristotle *Mirabilium auscultationes* 838b.33 describing the daemonic sound of *tympana*, crotals and cymbals coming from inside a cave on one of the Islands of Aeolus during the night.



Fig. 5.1: Marble stele from Delos with Kybele holding a large *tympanon* with the left hand and a phiale with the right hand. 2nd-1st century BC. Delos Museum Inv. No. A.3125 (after *Dons* no. 100).

Hesychius' description indicates that the characteristic aspect of the *tympanon* is its leather membrane and also mentions the terms δέρτρον (*dertron*) and βυρσάτονος (*byrsatonos*) that denote skin/leather and, by analogy, the musical tambourine or drum, but the use of these terms in literature is scarce.¹⁶ It is interesting though that in both Hesychius and Suda “τυμπανίζειν” denotes punishing or beating to death; thus τύμπανον (*tympanon*) also alludes to the baton or piece of wood used for beating in general.

The term ρόπτρον (*rhoptron*), possibly denoting a type of drum with fitted bells or jingles in the snare and its alternative interpretation as a beater, has been discussed in chapter 4.1.0. In Suda, however, the drum with fitted bells which was employed at war in India and also by barbaric people is denoted by the term *tympanon* and not *rhoptron* (Suda Lexicon s.v. “Τύμπανα”).

5.1.1 Kettle drum

5.1.1 Iconography and motifs: Bronze Age

Kettle drums have bodies in the shape of a hemispherical/ovate bowl or basin usually made of wood or clay. Metal is also used, especially in Asia. They have definite pitch that depends upon the stretching of the membrane, which is adjusted permanently by pegging or lacing. Kettle drums are found in all the continents; Marcuse notes that they are always associated

¹⁶ Hesychius Lexicon s.v. “Τύμπανα· τὰ δερμάτινα [π]ρακτῆρια κόσκινα, τὰ ἐν ταῖς κρουόμενα”. Suda Lexicon s.v. “Τύμπανον· ἐκ δερμάτων ἐστὶ γινόμενον, καὶ κροῦον, ὃ κατεῖχον αἱ Βάκχαι”. Strabo *Geogr.* 10.3.13.26-7 “ἔνθα τρικόρυθες ἄντροις βυρσότονον κύκλωμα τόδε μοι Κορύβαντες εὔρον”; see also Wegner 1949, 64.

with the concept of royalty and that the small varieties are always played in pairs (*Survey* 160). The religious importance of the instrument is underlined by four Akkadian clay tablets describing the rituals accompanying the replacement of the oxhide of a kettle drum;¹⁷ Dumbrill also argued that kettle drums may have been used as portable altars in Mesopotamia (*History* 77-8; Dumbrill 2000, 421-2, 512 ff.). Three variations of the kettle drum are found in the Near Eastern iconography of the Bronze Age:

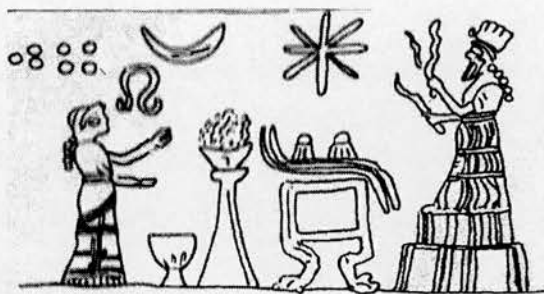
a) Small and shallow hemispherical kettle drum. This appears as early as the 4th millennium BC on an Elamite seal from Tchoga Mish; a crouching figure is playing it with bare hands, to the accompaniment of singing, along with a harp and probably clappers (see chapter 4.6.1 Fig. 4.63c; Duchesne-Guillemin 1980-1, pl. 38). A similar drum is shown on an Akkadian seal of the late 3rd millennium, in front of a lyre player (chapter 4.6.1.1, Fig. 4.65a).

b) Footed kettle drum. A large and deep footed kettle drum with tubular outline is seen on the terracotta relief plaque from Larsa dated at ca. 1800 BC (Fig. 5.3b); the drummer is playing with bare hands, standing opposite a seated cymbal player. A small-sized footed kettle drum is depicted on a seal impression from Tyre dated at the early 1st millennium BC (Fig. 5.2a). The hide can be seen stretched over the rounded body and tied at the start of the foot. The religious character of the scene is exemplified by the presence of the seven celestial bodies, the moon and the sun, the stand/altar and the table with offerings.

c) Kettle drum placed on a stand. A medium sized ovate kettle drum which tapers to a point at the base, placed on a stand with tall feet (probably a tripod) is depicted on an Akkadian cylinder seal (Fig. 5.2b). Here the hide is stretched over the body by means of a metal frame which is secured below the rim of the barrel with visible pegs or nails. The drummer is not playing the instrument but raises his hand like the seated and two standing figures that turn towards him (Dumbrill 2000, 419 pl. 6); he also holds a long object in his right hand that could be a beater, suggesting that the musician was using a combination of “hand-and-stick”.¹⁸

¹⁷ Analogous rituals are connected with the African drum making, concerning not only the preparation of the hide but also that of the wooden resonator; see Blades 1984, 57 ff.

¹⁸ The representation is in accordance with Blade’s account that “the stick - straight or curved - is normally held in the right hand, whilst the left hand mutes or strikes a note as required” (Blades 1984, 65).



a. Fig. 5.2: a) Footed small kettle drum. Impression from a seal cylinder from Tyre (after Dumbrill 2000, 421 pl. 9). b) Kettle drum on a stand. Impression from an Akkadian seal. 2334-2000 BC (after Dumbrill 2000, 419, pl. 6).

Such representations of deep kettle drums are absent from the Egyptian musical iconographic repertoire (despite the fact that kettle drums are very common in Africa). Similarly, kettle drums do not appear in Cyprus or in the musical iconography of Bronze and Iron Age Greece. The Greek literary terms designated for membranophones, which we have discussed, do not distinguish between the instrumental drum varieties that they might denote. As no archaeological evidence for drums is preserved from the Aegean (due to its perishable organic material, namely wood and leather) and representations of the instrument in Greece are of a later date and confined to the frame drum variety (see next section), the playing of drums has been considered as a later introduction in Greece resulting from the renewed contacts with the east during the first centuries of the 1st millennium BC. Consequently, potential pre-Classical representations of drums in the Aegean have not been considered by scholars and so far no allegations have been made for their performance in Bronze and Iron Age Aegean.

A MM representation from Crete, however, may depict kettle drums. It is shown on a conical clay seal with a transversal perforation for suspension, bearing a figurative scene on its circular flat underside (Fig. 5.3a). It was found at Archanes, Phourni Cemetery, Burial Building 18, Room 3, deposited along with two ivory pendants as an offering for one of the 18 burials contained in this room (burial belonging to the earlier stratum) (*Ergon* 1987, 124 fig. 151; *BCH* (112), 1988, 687 fig. 137; Sakellaraki 1991, 193-4, fig. 27; Sakellarakis & Sakellaraki 1997, 690 ff., figs. 791-2; *CMS II.6* no. 150). Two figures facing each other have in front of them a conical object turned with the flat surface on top and the pointed end at the bottom; each figure has one hand placed on the flat surface, while the other is raised. The left figure also holds an unidentified object consisting of three parallel stems, flat at the bottom and pointed at the top. Between the conical objects is another ambiguous circular object with a triangular loop on the top.

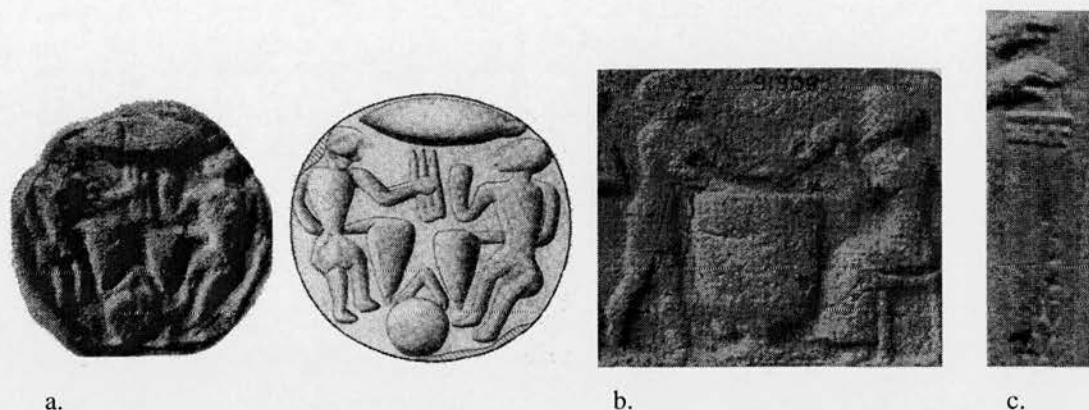


Fig. 5.3: a) Seal stone depicting possible kettle drums. From Crete, Archanes, Phourni Cemetery, Burial Building 18, Room 3. MM. Diam.: 0.025 (after *CMS ii.6*, no. 150). b) Performance of footed kettle drum from Larsa, ca. 1800 BC. *BM* Inv. No. 91906 (after Rimmer 1969, pl. Vb). c) Conical drum depicted on a Neo-Assyrian relief. Nineveh Palace, 7th century BC (after *MiB-Mesopotamien* 130 fig. 147).

The conical objects have not been interpreted by the excavators. Their shape and size is comparable to the kettle drum with pointed bottom placed on a stand represented on the abovementioned Akkadian seal (Fig. 5.2b). Furthermore, the position of the hands on the flat surface is identical to that of the drum player depicted on a Babylonian terracotta plaque from Larsa (Fig. 3.3b).¹⁹ In the context of these Near Eastern representations, the hypothesis that the conical objects could be identified as drums is quite convincing in terms of their overall rendering, size and position in relation with the figures, whose arm arrangement is in absolute agreement with bare-handed drum playing technique. In addition, the customary practice of many cultures to perform two kettle drums together, as noted by Marcuse and other scholars (Blades 1984, 137 ff.), is shown on the Archanes seal.

No stand or foot is clearly depicted on the Cretan representation and the objects appear to be floating in the field, unless we suppose that they are connected with, and somehow supported by, the ambiguous object seen at the bottom of the scene. The sharp conical shape of the drums is remarkable and it may have been exaggerated by the artist. A conical drum depicted on a 7th century BC Neo-Assyrian relief from Nineveh is similar in height with those from Archanes, but has a narrow diameter and tapers softly towards the flattened bottom (Fig. 5.3c). On the other hand, the characteristic shape of the Archanes instrument, with a broad upper part ending in a pointed tip, could be compared with deep cylindro-conical drums of

¹⁹ For the terracotta plaque from Larsa see previous discussion on mimetic dance (chapter 4.5.1) and Galpin 1937, pl. III:2; *MiB-Mesopotamien* 78, fig. 60; *Behn* pl. 13 fig. 29; Spycket 1972, 200 fig. 41; Duchesne-Guillemin 1980-1981, pl. 39; Rimmer 1969, 25, pl. Vb.

various sizes from India and Central Africa whose bowl-shaped resonators are prominently tapering at the bottom (Fig. 5.4a, b). The shape of one kettle drum from Uganda in particular, the *bagyendanwa* (Fig. 5.4c), is identical to that of the instrument depicted on the Cretan seal as it has a similar pointed end (Ganseman & Schmidt-Wrenger 1986, 42). The Indian examples rest on the ground, whereas the African ones usually have loops enabling their suspension from the body (Blades 1984, 53 fig. 11, 137, pls. 12, 14, 43a nos.3 and 16, 47); the Neo-Assyrian parallel was also suspended from the body during performance. The same could be postulated for the drums depicted on the seal from Archanes, although there seems to be a significant distance between the instrument and the bodies of the musicians; this might be due to the difficulties in rendering the action of tambourine playing in such a small scale.

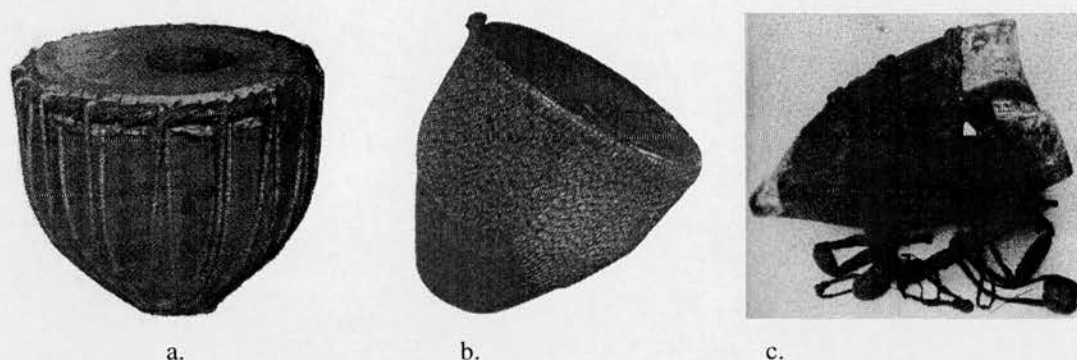


Fig. 5.4: a) *Bhaya*, kettle drum from India. b) Kettle drum from Uganda (after Blades 1984, pl. 12 and 47 right respectively). c) *Bagyendanwa*, kettle drum from Uganda (after Ganseman & Schmidt-Wrenger 1986, 43, fig. 41).

The representation of kettle drums on the Archanes seal is hitherto unique in Bronze Age Aegean. Its significance is not clear as there are no comparable Aegean scenes, but a religious symbolism can be surmised given that the seal was deposited in a burial context and based on the character of the Near Eastern representations of kettle drums and their performance that we have underlined.²⁰

5.1.2 Iconography and motifs: early Iron Age

Drum representations are rare in the first half of the 1st millennium in Greece. In connection with kettle drum iconography, an Attic skyphos from the Burly Workshop (Cat.4) dated at the last quarter of the 8th century BC deserves our attention (Fig. 5.5):

²⁰ In Uganda the performance of the *bagyendanwa* marks the enthronement of a new chief (Ganseman & Schmidt-Wrenger 1986, 42).

(VP) 4) **Skyphos.** *NMA* 874. From Athens, context not mentioned.

In the interior it has a continuous frieze representing male and female dancers moving towards four frontal standing female figures; the dance is accompanied by a male lyre player and two male figures with swords holding semi-circular objects at face/chest level (Fig. 5.5 Cat. 4/a, 4/b). The objects are usually interpreted as lyres in analogy with the presence of the lyre player in the scene.²¹ However, this explanation is not satisfactory, as they are rendered very differently from the lyre, the latter having two strings, a straight yoke, arms curved outwards and a deep soundbox pointed towards the musician. This is in contrast with the objects held by the armed males which have the flat surface facing the musician and the deep semi-circular body of the object facing away from them (compare lyre player with Cat. 4/a, 4/b in Fig. 5.5). One object also has a sort of rim (Cat. 4/a).

Wegner has noticed the particular rendering of these objects; on the basis of their semi-circular outline, he suggested that round shields are being carried (*MusikTanz* 72). In this case, the shield would be seen in profile, but in Attic Geometric vase painting round shields are depicted as a full circle in frontal view.²² The only exceptions are a LG sherd from Chios showing a male fighting a lion, with his spear raised above the head and his round shield rendered in profile (*Rombos* pl. 37a) and a skyphos from Cyprus with a file of warriors in a similar fighting pose ready to throw the spear and bringing the shield in front of their chest (Fig. 5.5a).²³ The profile view of a large Dipylon shield seen on a MPC aryballos should also be mentioned (Fig. 5.5b), although its shape is not entirely comparable with that of the objects seen on Cat. 4. In these representations the warrior is shown in action, and so in contrast with the males with swords of Cat.4 who are participating in a musical event. The size of the object of Cat.4/a might allude to a shield,²⁴ although the arm position of the figure on both Cat. 4/a and 4/b is similar to that of the lyre player, with the right hand of the figure Cat. 4/b brought onto the flat surface of the object.

²¹ Borell 1978, 18; *Workshops* 86; *Rombos* 498 no. 304; *Dons* 236. Karouzou in particular identifies the objects as “a form of primitive lyre (chelys)” (*CVA Athènes* 2, 9).

²² This can be seen in all the examples shown in *Rombos*, *Tölle* (esp. Table III), Ahlberg 1971, Coldstream 1968 and Boardman 1998.

²³ The skyphos from Cyprus is Black-on-Red, dated to the CG:III period (Karageorghis & Des Gagniers 1974, 61; Snodgrass 1980, 56, pl. 12:3; Demetrious 2000, 46, pl. 11:2). The fact that the bodies of the soldiers are shaped as Dipylon shields is apparently a misunderstanding on behalf of the Cypriot painter of the Greek Attic LG representations where this type of shield is completely covering the body of the warrior. Therefore, it is thought that the Cypriot scene is influenced by the first LG:I Attic imports to Cyprus.

²⁴ On the other hand, it is too deep in comparison with the Cypriot representation or the example from Chios.



Cat. 4, lyre player



Cat. 4/a



Cat. 4/b



a.



b.



c.



d.

Fig. 5.5: Cat. 4, lyre player. Cat 4/a and 4/b: Details of the two male possible drum players. a) Warriors on a Cypriote Black-on-Red skyphos (drawing after Snodgrass 1980, pl. 12:3). b) Dipylon shield in profile view and round shield. MPC aryballos from Lechaion (drawing after Snodgrass 1964, fig.15b). c) Egyptian painting of dancer with small conical kettle drum (after *Behn* pl. 31:71). d) Terracotta small kettle drum (after *Behn* pl. 30:68).

The hand position and the shape of the object of Cat. 4/b which is smaller and more conical than that of Cat. 4/a, can be compared with Egyptian representations of small portable kettle drums displaying a similar outline, with the flat surface denoting the sounding membrane stretched over a deep, pointed bowl-shaped body (Fig. 5.5c).²⁵ These drums were known in Egypt since the 18th century BC and are thought to have been introduced by foreigners from the Syro-Palestinian coast (Philistines). A few such clay pots have been recorded from Egypt, reaching 0.16 in diameter and 0.11 in height; one of them is shown here in Fig. 5.5d (*Behn* 51; Manniche 1991, 38-9).²⁶ Although this instrument has remained very popular in folk music of the Arab world until the present day (the modern *darabukka* with an added foot), similar representations from Egypt and the Near East dated to the 1st millennium BC and

²⁵ For the full scene depicting a group of dancers with tambourines see Lexová 2000, fig. 56; Manniche 1991, 39; *Behn* 51, pl. 51:71. Another representation of this instrument is shown in Stainer 1914, 184 fig. 95.

²⁶ A version of the small portable kettle drum with cylindrical foot held under the armpit (*darabukka*) was also known in Mesopotamia, as it is attested by representations on Babylonian reliefs and terracottas from the mid-3rd and early 2nd millennium BC (Spycket 1972, 160 fig. 5; *MiB-Mesopotamien* 96, fig. 96). A clay figurine from a temple at Gilat (Israel/Palestine) dated at the 4th millennium BC that carries a milk container may also hold this instrument under the armpit; the figurine is considered to have had a cultic meaning associated with early concepts of fertility (Braun 2002, 55-6, fig. II.5).

contemporary to the Athenian scene are rare. A terracotta *darabukka* player is known from Beth-shean in Israel/Palestine (Braun 2002, 130, pl. IV.10), but its corroded surface does not allow comparison with the Athenian vase painting.

Indeed, the similarity in shape and hand position between the Greek and the Egyptian representation may well be superficial with a chronological disparity of almost a thousand years. In any case, the identification of the objects of Cat. 4/a, 4/b with lyres should be abandoned and the only contemporary comparisons of this particular shape are shield representations. However, it is interesting to note here the reluctance of scholars to offer such an explanation for these objects. If round shields are depicted on Cat. 4, then we can imagine the armed males bringing them forward in a dance movement. A musical function could also be postulated with shield-beating accompanying the dance, although such action is not clearly portrayed or implied, since no beaters are shown and the swords of both males are hanging from their waists. Their hypothetical identification with drums on the other hand is in keeping with the festive musical character of the scene (note that tripods are shown on the outer surface of the vase), but remains an isolated instance in the LG musical iconographic production of mainland Greece. The Athenian artist of the LG period could have derived his models for drum playing iconography from Cyprus (discussed below), Egypt and Canaan-Phoenicia; the latter also produced an early Iron Age female terracotta playing the *darabukka*, a small portable kettle drum (Braun 2002, 129, pl. IV.10). Scenes of music ensembles comprising lyre and tambourine embossed on Cypro-Phoenician bronze bowls were in circulation in the Aegean between the 9th-7th centuries BC (see Appendix I), although none has been found in Athens so far. The combination of tambourine playing and dancing is depicted on an earlier Cypro-Geometric I/II terracotta (Cat.79) and male drum players are often represented in the coroplastic arts of the Cypro-Archaic period (see chapter 5.3.2). From Mainland Greece, mixed dance with male musicians such as that seen on Cat. 4 is encountered only in a few dance representations of the 8th and 7th centuries BC (Cat. 1, 24, 27, 29). Two examples are found in Cyprus during the same period (Cat. 117, 193).

5.2 Tubular drum

Barrel-shaped drums with membranes on both ends of their body were performed in Egypt where they are found in numerous representations of the Middle and New Kingdom (2nd and 1st millennium BC). Actual instruments from Thebes and elsewhere in Egypt have also been excavated and, according to Sachs, were initially earthenware (*History* 96-7; Manniche 1991, pl.2; Ziegler 1979, 76 fig. 100; Blades 1984, 154). Egyptian barrel-shaped drums can be

between 0.30-0.60 long and are always suspended from the body whilst both membranes are beaten with bare hands. They are always depicted being performed by male Nubians which indicates the African origin of the instrument, initially as a dance accompaniment and subsequently used in religious and military performances (Ziegler 1979, 71 ff.; Blades 1984, 155).²⁷



Fig. 5.6: Faience figurines from Rhodes, Lindos, with barrel-shaped drums; kneeling and seated figure. Second quarter 6th century BC (after Blinkenberg 1931, pl. 55 nos. 1253 and 1260 respectively).

A type of small barrel-shaped double-headed drum is represented in a few faience figurines deposited in some Greek sanctuaries in the 6th century BC (Fig. 5.6). Such faience figurines were usually pierced for suspension as amulets and comprise a variety of attitudes (animals, monsters, offering-bearers, musicians and others). Two examples of drum players are found in Rhodes (Athana Lindia Sanctuary), one in Heraion at Perachora and one in the Sanctuary of Aphaia Athena at Aegina (Blinkenberg 1931, 350 nos. 1253, 1260; Webb 1978, 90 nos. 409, 410, 412).²⁸ This type follows Egyptian prototypes in the modelling of the figure, as well as in the musical practice that it portrays. Such small barrel-shaped drums are played by the Egyptian god Bes in the Late Period (6th century onwards) in exactly the same manner as the Greek faiences (*MiB-Ägypten* 103 fig. 72). The figurines are connected with the faience industry in Naukratis and their features recall Cypriote statuary with Egyptian elements (wig, large eyes and broad face). In proportion to the figures, the instrument appears to have a body approximately 0.30 long and no more than 0.12 high. It is held, or apparently suspended, at abdomen-level, and is played with both hands placed on each membrane. In the case of the seated example the drum appears to be placed on the lap of the musician.

²⁷ Miniature clay barrel-shaped drums are also known from Neolithic Bulgaria (Karanovo VI) dated at the 5th millennium BC (Gimbutas 1989, 72 fig. 112).

²⁸ The figurines belong to Webb's "Block Group" dated at the second quarter of the 6th century, and they follow the style of a similar drum player from Naukratis belonging to Webb's "Black-and-White Blob Group", more refined in workmanship and dated between 630-580 BC (Webb 1978, 88-9, no. 366).

It is questionable whether the presence of these figurines in Greek sanctuaries can be taken as evidence that the barrel-shaped drum was actually performed in the Aegean, since a few specimens appear only in this class of artefacts and they are not represented on any other media throughout the 1st millennium BC or earlier. In a period when contacts and trade with Egypt were flourishing, especially with the Greek population settling at Naukratis in the end of the 7th century BC, it is plausible that this instrument had become known in the Greek world; the Greek worshippers who dedicated these figures would have recognised the shape as indicative of a type of drum. Webb remarks that these faience figurines are “un-Egyptian” in character and symbolism as they do not represent the deity itself in the typical Egyptian custom, but are “the gift of the worshipper” to the divinity (Webb 1978, 82); the gift in this case is music by drumming.

5.3 Round frame drum (tambourine)

5.3.1 Iconography and motifs: Bronze Age

Frame drums (tambourines) consist of a circular or rectangular wooden or metal frame whereupon the membrane is stretched. Rectangular frame drums are not depicted in Greece and Cyprus and therefore will not be discussed.²⁹ Portable round frame drums are very common in the Eastern Mediterranean and are used until the present day in the traditional music of various cultures. They first appear on an Anatolian rock carving from Çatal Höyük dated at 7th-6th millennium BC (*NGDMM ii*, s.v. “Anatolia” fig. 1; Braun 1997, 73 believes they were beaten with a stick); in the 3rd millennium BC they are shown on a rock painting at Tell Halaf (Syria) and on the decoration of a lyre from Ur (Galpin 1937, pl. VIII:1, 2). In both these instances the tambourine is played by animals. From the early representations of tambourine playing it can be surmised that it is not a strictly female instrument as it is commonly referred to. On an Old Babylonian terracotta plaques from Larsa a round frame drum with a diameter between 0.20-0.30 is performed by a male dancing in front of a nude female lyre player (*MiB-Mesopotamien* 76, pl. 59); similar plaques also depict nude tambourine players wearing a large quantity of jewellery (Fig. 5.7b), but they hold the instrument in a different manner (see below, Types A and B). Representations of the instrument in Egypt do not predate the New Kingdom (16th century BC onwards) and depict it usually played by females, with the exception of the male gods Bes and Anubis (*History* 97;

²⁹ Rectangular frame drums are found in Egypt and Assyria in Bronze and Iron Age representations and they are still played in the Arab world today (Collaer & Elsner 1983, 110, 169 fig. 166; Kubik 1989, 18), but generally the circular frame drum prevails in most cultures.

Duchesne-Guillemin 1980-1, 290; Ziegler 1979, 73 ff.; Manniche 1991).³⁰ From surviving Egyptian instruments in the Louvre and the Ashmolean and Cairo museums, it is verified that ancient frame drums with two membranes as well as single headed ones were used,³¹ and that the membranes were not always nailed but could also be braced with thongs, thus allowing the tension to be moderated (Ziegler 1979, 73; Hickmann 1949; Manniche 1991, pl.12; Blades 1984, 154-5; Stainer 1914). In the iconography of Israel/Palestine round tambourines appear on a rock carving of the 2nd millennium BC. From the beginning of the Iron Age they are played by numerous female terracottas, a fact according to Braun indicating that the frame drum had become a popular instrument of the masses (Braun 1997; 2002, 70 ff., 118 ff.).

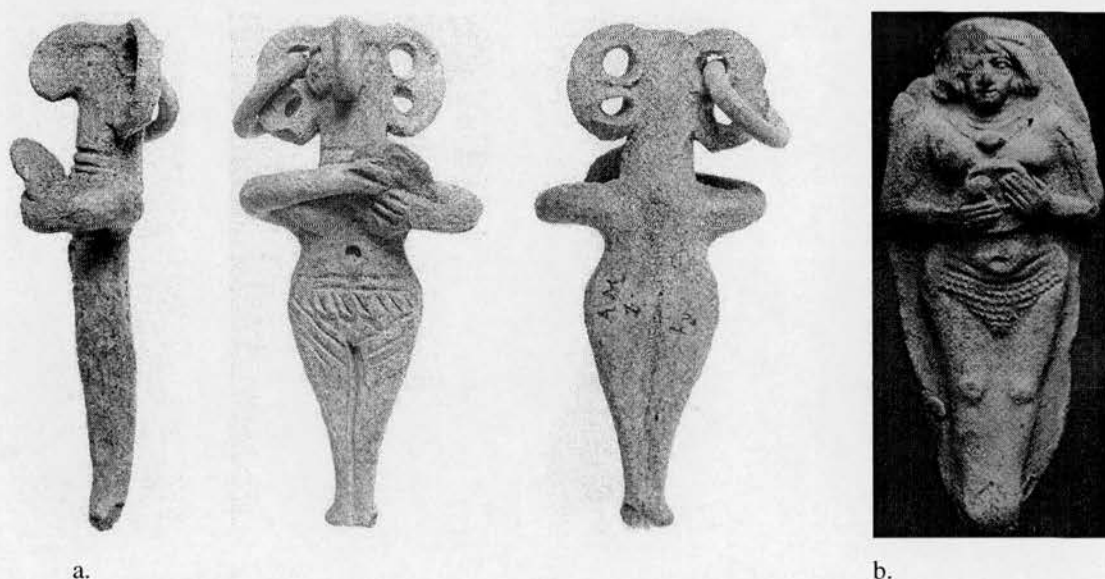


Fig. 5.7: a) Cypriote terracotta tambourine player. Ht.: 0.12. LC:III. *Louvre* Inv. No. AM 1 (after Caubet, Fourrier & Queyrel 1998, no 12). b) Old Babylonian terracotta plaque with tambourine player. From Tellō. 1950-1530 BC. *Louvre* Inv. No. AO 15085 (after *MiB-Mesopotamien* 96 fig. 92).

Given the simplicity of making the frame drum with organic materials, the early association of the instrument with fundamental concepts of the primitive mind such as earth and rain invocation, the literary references regarding its connection with fertility rituals and the weather god (see previous discussion, chapter 5.0), and the popularity of the instrument in the neighbouring cultures, it is striking that there is no pictorial evidence for frame drums in Bronze Age Aegean. From Cyprus we have only one Bronze Age representation of the tambourine. It is a LC:III nude female terracotta figure (Base Ring Ware), bird-faced with

³⁰ The gigantic frame drum attested once in Egypt of the V Dynasty is thought to have been a Sumerian import (*History* 96).

³¹ The same view is taken by Braun based on the holes pierced on potential clay tambourine frames from Israel/Palestine (Braun 2000, 118).

large pierced ears, wearing one earring and a necklace, the pubic area and navel indicated with strokes and depression respectively (*Coroplastic ii*, 10 cat. no. A(vi)1, pl. VII:2; Caubet 1971, 11, pl. IV:4; 1998, 10-11 no. 12; Morris 1985, fig. 287). She is holding the round tambourine flat and slightly tilted forward in front of the chest while playing it with both hands (Fig. 5.7a). Direct parallels for this playing position are found in earlier Babylonian terracotta plaques of the first half of the 2nd millennium BC that depict figures playing the tambourine in front of the chest and who also display the general features of nudity with accentuated genitals, marked umbilicus, stiff pose and wearing a necklace that characterise the Cypriote figurine (*MiB-Mesopotamien* 96, figs. 92-95; Spycket 1972, 181 fig. 31; Bisi 1980, 58 ff., pl. II:1; Braun 1997, 74). One complete example from Tellō is shown here in Fig. 5.7b. The playing action of the tambourine players suggests that this is a single-headed tambourine. Both hands grip the frame with the palm and thumb (the latter resting flat on the outer surface of the frame), while the rest of the fingers strike the beats on the membrane. The hands are usually placed on different levels on the membrane, one towards the bottom and the other towards the top, resembling the depiction of the Cypriote terracotta. This technique is still used in Arab countries today enabling complex rhythms to be performed, owing to the fact that both hands are engaged in playing (Fig. 5.8). The instrument is not “pressed against the body” as suggested by Braun, because it is necessary that it is held in some distance from the body for the sound to disperse.³² In this respect, the Cypriote terracotta is more realistic than the Babylonian relief plaque in showing the instrument slightly tilted forwards; the thin disc might indicate a shallow frame.



Fig. 5.8: Tambourine player from Morocco (after Collaer & Elsner 1983, 157 fig. 152).

³² That the instrument is not simply held but actually played is also surmised by a Sumerian literary text referring to the ventral area being struck like the sacred *ub* (frame drum) (Spycket 1972, 181).

The corpus of Base Ring terracottas with their characteristic poses (usually bringing both hands on the ventral area or holding an infant) are Cypriote in inspiration and style. The plank-shaped body with flat back, long neck, marked umbilicus and ears with multiple piercing (although without earrings) are features that follow the tradition of MC:III terracottas (*Coroplastic i*, 176 ff. cat. Ea, pls. CXL-CXLI). Their finish and modelling of the face with pinched nose shows affinities with Syrian and Mycenaean stylistic features (*Coroplastic ii*, 21; French 1971). The motif of the tambourine player is found only once in a corpus of standardised and possibly mass-produced Base Ring terracottas that exhibit repeated set poses and are found throughout the island.³³ According to Karageorghis, the establishment of this iconographic type is apparently associated with a divinity (as the kourotraphos Base Ring examples would suggest) and reflects the standardisation of religious beliefs in all parts of Cyprus by the 12th century BC. The Babylonian equivalents, with accentuated breasts, pubic and ventral area, are thought to be cult images of fertility, either a deity or an attendant of the temple (Bisi 1980, 59; Spycket 1972, 181). The provenance of the Cypriote tambourine player is not known, but terracottas of this class are absent from sanctuary contexts and so far are found only in tomb and settlement deposits, a fact that precludes them from being worshippers or assistants at the temple and weakens the hypotheses that they have a divine character.³⁴

This type of terracotta relief plaques, with heavily adorned, naked female tambourine players holding the instrument in front of the body, also becomes popular and widespread in the Levantine area from the 12th century onwards and is often found in cultic sites and funerary contexts (Braun 2002, 126 ff.). There has been controversy about whether tambourines or other objects such as cake/bread offerings or platters are intended,³⁵ but the rendering of a

³³ Another figurine is holding a chalice-shaped object on the left side of the body and has the right hand placed on top of it (*Coroplastic ii*, 8 cat. no. A(iii)1, pl. V:6). Like the tambourine player, this type is also found only once in the corpus of Base Ring Ware terracottas. The object has been described as a “footed conical shallow bowl”, but the fact that the right hand is placed on top of it might suggest that we have another drum representation, the small footed kettle drum or *darabukka* (compare discussion in n. 25 on the cup-shaped object under the armpit of a Neolithic figurine from Gilat, Israel/Palestine). This instrument is usually held at an angle with the foot under the left armpit and in this position it is depicted on an Old Babylonian terracotta (*MiB-Mesopotamien* 97, fig. 96); the Cypriote object is also near the armpit but it is held upright. In Morocco the small footed kettle drum known as *ta'riġa* is not held under the armpit but in front of the body, tilted or upright (Collaer & Elsner 1983, 149 fig. 145; Jenkins & Olsen 1976, 84). It is thus possible that we have two drum players in this class of artefacts playing two different kinds of instruments, the frame drum and the kettle drum. Given that a third figure of the corpus is shown clapping her hands (chapter 4.5.1, Fig. 4.58a; *Coroplastic ii*, 10 cat. no. A(vi)2, pl. VII:3), the element of rhythm is represented on art for the first time in Cyprus with the Base Ring Ware figurines.

³⁴ Karageorghis is hesitant in ascribing them a religious function as good-luck charms of the lower strata of LC society (*Coroplastic ii*, 22).

³⁵ A similar debate also applies to the Cypro-Achaic figures (Types B and C) discussed in the following section. Braun has suggested that the discs which are larger in diameter and present the hands

frame by means of grooves-and-ridges at the periphery of the disc that can be observed on many examples (Fig. 5.9a-c) is secure evidence that tambourines are represented. In some cases, additional punctures or V-shaped motifs are seen on the periphery of the disc (Figs. 5.9b, c), both decorative features that could also be indicative of the ornamentation of the membrane.³⁶ Braun compared these features with similar concentric circles with transverse strokes depicted on an Egyptian XIX Dynasty fresco dated at the 13th century BC (Fig. 5.9d) and argued that the Levantine coroplast drew from both Egyptian and Old Babylonian prototypes (Braun 2002, 131). The inspiration for the Cypriote coroplast of the 12th-11th century BC may have been the result of contact with the opposite Levantine coast, but the heavy curves of the female body and the simple disc without ornamentation are more in accordance with the Old Babylonian prototype.



Fig. 5.9: Tambourine players. Terracotta relief plaques: a) from Hazor (after Yadin 1960, pl. CLXIII), b) from Tell el-Far'a, c) from Megiddo (after Braun 2002, pls. IV.8 and 9 respectively). d) Egyptian fresco from Thebes. XIX Dynasty (after *MiB-Ägypten* 107 fig. 71).

5.3.2 Iconography and motifs: Iron Age

In the Iron Age, representations of musicians playing the round frame drum become popular in Cyprus and appear for the first time in the Aegean. According to the playing technique that is depicted, tambourine players can be distinguished in the following iconographic types: A) tambourine held vertical to the body (played mainly with right hand), B) tambourine held perpendicular to the upper body (played with both hands), C) tambourine held on the ventral area with one hand and D) large tambourine held with both hands in front of the lower body.

in a clearly asymmetrical arrangement (with the left holding the disc at the bottom and the right beating the side or the centre of the membrane) are indisputable tambourines, whereas the smaller versions are less clearly identifiable (Braun 2002, 127 ff.).

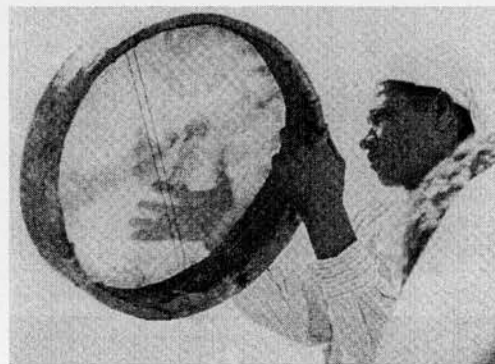
³⁶ Similar decoration on the membrane of the frame drum is also applied today, with dots and zig-zags (among other motifs) painted with red paint on its periphery; see Jenkins & Olsen 86, pl. 2.

Type A) Tambourine held vertical to the body

The tambourine is held at the level of the face or the chest and towards the (left) side of the body; it is positioned either at an angle or vertical to the plane of the body. The instrument is supported from below with the left hand or is held at the side of the frame that is close to the body (Fig. 5.10a, b). The right palm and fingers beat the rhythm on the front surface of the membrane; striking it at different areas (near the frame or towards the centre) alters the tone.³⁷ The fingers of the left hand are also important, as pressing them on the back side of the membrane may alter the tone and pitch; this can happen if the instrument is held from the side of the frame which is close to the body, with the thumb resting along the open side of the frame (the frame being gripped between the flesh of the thumb-part of the palm and the roots of the fingers) and the fingertips pressing the back of the membrane (Fig. 5.10b). The grip is different if the instrument is held from below, with the thumb resting on the inner side of the frame and the fingertips also beating the front side of the membrane (Fig. 5.10a). The latter offers more flexibility in moving and raising the arm above the head, often seen in the course of dancing. This technique is still used today for the performance of the frame drum.³⁸ It is also the one most commonly found on Mesopotamian and Egyptian tambourine-playing representations from the Bronze Age onwards.



a.



b.

Fig. 5.10: Handgrip of frame drums: a) held at the bottom, b) held at the side. From Algeria (after Collaer & Elsner 1983, 110 and 114 respectively).

³⁷ Anoyanakis notes that “by striking the head (membrane) near the centre one obtains a deeper and fuller sound, whereas the peripheral area produces a sharp and dry sound” (Anoyanakis 1979, 133).

³⁸ For the various tambourine-playing techniques see Montagu & Blades 1976, 15, 37 ff.; Blades 1984, 385 ff. For the modern Greek frame drum (*defi*) and representation of our Type A technique in Greek folk art see Anoyanakis 1979, 132 ff. For similar medieval and modern performances of the instrument in the Arab world see numerous examples in Farmer 1966 and Collaer & Elsner 1983.

Tambourine representations of Type A are common in Near Eastern iconography of the Iron Age.³⁹ During the first half of the 1st millennium BC representations of tambourine players are found mainly in Cyprus, and sporadic examples come from the Aegean, namely from Samos, Eretria, Sparta, Olympia and possibly Crete (Fig. 5.11):

- (C)⁴⁰ **79) Circle female dance with tambourine player.** *CM* Inv. No C350. Cyprus, unknown provenance.
- 105) Bell-shaped tambourine player with mobile legs (or clapper).** Geneva, Musée d'Art et d'Histoire, Inv. No. HM8586. From Cyprus, unknown context.
- 114) Standing tambourine player.** *LM* T276/253. From Amathus, Tomb 276, Cyprus.
- 122) Tambourine player.** *Louvre* Inv. No. AM 1426d. Possibly from Larnaca-Kamilarga, Cyprus.
- 124) Standing tambourine player.** Vienna Kunsthistorisches Museum Inv. No. V2004. From a sanctuary site at Larnaca-Kamilarga, Cyprus.
- 125) Standing tambourine player.** Vienna Kunsthistorisches Museum Inv. No. V1989. From a tomb at Larnaca-Kamilarga, Cyprus.
- 126) Male tambourine player.** *CM* Inv. No. AI. No.102. From Ayia Irini Sanctuary, Cyprus.
- 127) Female tambourine player.** *CM* Inv. No. B205. From Cyprus, Lapithos workshop. Possibly from a bothros at Lapithos.
- 137) Standing female tambourine player.** Samos exc. no. T1799. From Heraion Sanctuary, Samos.
- (M) **179) Shallow bowl.** *HM* Inv. No. 31. From the Idaean Cave, Crete.
- 181) Shallow bowl.** *MMNY* Inv. No. 74.51.5700 (Cesnola Collection). From Idalion, Cyprus.
- 182) Shallow bowl.** *BM* Bronzes Catalogue No. 186. From Salamis, Cyprus.
- 183) Shallow bowl.** *MMNY* Inv. No. 74.51.4557 (Cesnola Collection). From

³⁹ Male and female frame drum players (Type A) are seen on relief sculpture from Zincirli and Karatepe, Anatolia (Bossert 1942, 243 pl. 949; *Aign* 173 ff., A/5-6, fig. 101; *NGDMM* ii, s.v. "Anatolia" 389 fig.4), on the decoration of a Syro-Phoenician ivory pyxis from Nimrud (Barnett 1957; *MiB-Mesopotamien* 109 fig. 122; *Aign* 158, S/6, fig. 9; Rimmer 1969, pl. VIIa) as well as on Neo-Babylonian terracottas and Neo-Assyrian palatial reliefs (*MiB-Mesopotamien* 107 fig. 116 and 118, 122, 136 figs. 149-150; see chapter 4, Figs. 4.25a and 4.26a).

⁴⁰ See also *Coroplastica* iv, 42 cat. nos I(ii)16, 17, pls. XX:9, 10 for two male tambourine players with solid body from Paphos district (Yeroskipou-Monagroï).

Kourion, possibly a tomb.

- 185) **Shallow bowl.** *MMNY* Inv. No. 74.51.4555. From Cyprus, unknown context.
- 187) **Shallow bowl.** *NMA* Inv. No. NM 7941. Found near Olympia.
- 190) **Shallow bowl.** Louvre Inv. No. 0AO 4702. Allegedly from Sparta.
- (SE) 193) **Seated and standing musicians with offering table.** *CM* Inv. No. A.I. 2123
From Ayia Irini Sanctuary, Cyprus.
- 195) **Procession of musicians towards seated figure.** Eretria Museum. From
Apollo Daphnephoros Sanctuary, Eretria.
- 198) **Group of musicians.** *BM*, H. Walters Cat. No. 301. From Rhodes,
Kameiros.

The vast majority of the representations of this type come from Cyprus, and the earliest is dated at the CG:I/II period, at the first half of the 10th century BC. This is a terracotta group of female ring dancers who are accompanied by a tambourine player in the middle of the circle (Cat.79). Terracotta circle dances appear in Cyprus from the end of the LC:III-beginning of CG:I period at sanctuary sites such as Enkomi (Sanctuary of the Ingot god) and Ayios Iakovos (Courtois 1971, 326 ff.; Vandenabeele 1991, 58; Webb 1999, 213; *SCE I*, pl. LXVIII). This is the first time that the motif of the tambourine player is combined with that of the dancers in Cyprus, and it foreshadows the representation on the “Cypro-Phoenician” bronze bowl from Idalion (Cat.181) that was produced a century later and includes both the tambourine player and the female dancers in the same scene. The CG terracotta has captured the feeling of the performance, with the instrument slightly tilted and the faces of the musician and the dancers looking upward, possibly in an attitude of ecstatic dancing.⁴¹ Cat. 79 can be compared with the tambourine player on the clay stand from Ashdod (end 11th-beginning 10th century BC) who also holds the instrument in the manner of our Type A, although lacking the lively pose of the Cypriote figure (Braun 2002, 168 fig. IV.32b).⁴²

Cypriote terracotta production favoured the subject of tambourine players shown in the pose

⁴¹ Another group of dancers with tambourine player from Lapithos is mentioned by Bisi 1966, 17 (no. 1).

⁴² See previous discussion on the Ashdod stand in chapter 4.1.2.2, n. 150. The stand does not include dancers in its decoration and it shows only a musical ensemble; dancers are shown independently on another cult stand from Tell Qasile (Braun 2002, 177, fig. IV.34). A distinct musical tradition mentioned in the Bible involved women, frame drums and dancing and is considered by scholars as indicative of female drum-playing in a variety of occasions, although not connected with Israelite Temple rituals (Meyers 1987, 122; Braun 2002, 126).

of Type A during the Cypro-Archaic I-II period.⁴³ The instrument is rendered as a thick clay disc, usually held in front of the chest and gripped from below (Cat. 105, 114, 122-125). The solid handmade figurines of the Lapithos workshop (Cat. 127) hold it to the left side of the body, in one case raising it above the head in a fervent dancing movement (Yon & Caubet 1988, 14, Atelier 1 no 13, pl. II).⁴⁴ In most instances the rim of the disc is flattened to represent the frame and, as a consequence, the head of the drum is slightly concave, the overall visual impact being a convincing portrayal of the instrument. This is seen particularly on Cat. 114. The application of colour (black and red) on the instrument is shown on Cat. 126 and 127; the frames are marked with transverse strokes and the membrane has a coat of paint.⁴⁵ Cat. 114 and 126 show large frame drums, probably comparable to those seen in Fig. 5.10 from Algeria; such large instruments are also depicted on some of the “Cypro-Phoenician” bronze bowls (Cat. 181, 182, 183).

The figures of the Larnaca-Kamilarga workshop with hollow body and mould made face, hold tambourines that are usually shaped as simple flat thick discs (Cat. 122), often with painted rim; many examples are less carefully made, with figurines holding a very schematic lump of clay in the manner characteristic to tambourine-playing (Cat. 124, 125), sometimes also supported from below with an additional piece of clay. Figures similar to Cat. 124, wearing an egyptianising wig, are mainly found around the Phoenician city of Kition and were dedicated to the nearby sanctuaries of Chryssopolitissa, Kamelarga and Salines (Meerschaert 1991).⁴⁶ The Egyptian influence in the modelling of the facial features of these figurines is strong.⁴⁷ Cat. 125 on the other hand is wearing a hooded cloak and her face is less rounded than that of

⁴³ Limestone examples of this type are also known, but they are limited in number (Vandenabeele 1994, 129-30, pl. XXXIX:b).

⁴⁴ Seven tambourine players of the handmade variety from Lapithos, including our Cat. 127, are catalogued by Karageorghis (*Coroplastic vA*, 42 cat. nos. I(xi)h: 60-66, pls. XXVII:5-11); they are housed in the museums of Nicosia (Inv. Nos. B211, B190, C904, C905 and Cat. 127), Birmingham (Inv. No. A1521-1982) and the Louvre (Inv. No. AM1607). See also Meerschaert 1991m 186, pl. XLIII:c. For the association of the workshop with the local cult of the Great Goddess see Yon & Caubet 1988. For the few female tambourine players with hollow body and mould-made face of the Lapithos workshop (which are comparable to those of the Larnaca-Kamilarga workshop) see chapter 4.1.2.2 (Fig. 4.22b).

⁴⁵ On another Neo-Cypriote example from Ayia Irini the membrane is decorated with a star motif (*Coroplastic iv*, 42 cat. no. I(vii)19, pl. XX:12. The tambourine players from Ayia Irini are male; for

⁴⁶ For examples of the Larnaca-Kamilarga workshop see *Coroplastic vA*, 68 ff. cat. nos. II(xv)1 ff., pls. XLVI-L; Meerschaert 1991, 186, pl. XLIII:d; Caubet, Fourrier & Queyrel 1998, 356-362 nos. 574-589, also including similar examples manufactured at Kition. Phoenician influence has been suggested for a variety of this type of terracottas bearing a lamp on their head; they were found at Kamelarga and it has been suggested that they were dedications to a sanctuary of Artemis (*Coroplastic vA*, 66-7 cat. nos. II(xiii)2, 3, 5, pls. XLV:2, 4, 6; Vandenabeele 1985; 1986, 354, pl. XXX:4).

⁴⁷ Cassimatis compared the rendering of the face, the large ears and the coiffure of these figures with Egyptian *ushabtis* (small faience figurines that accompany the dead) of the XXVI Dynasty (663-525 BC) and suggested an Egyptian provenance for the moulds (Cassimatis 1986, 179).

Cat. 124; these features are found on Levantine terracottas of the Hebrew/Judean cultural sphere, like the example from Nebo seen in Fig. 5.12a. The fact that the motif of the tambourine player is found regularly in mass-produced terracottas, as well as on seals and bronze bowls whose iconography has parallels in the contemporary artistic production of North Syria and Phoenicia, has led to the assumption that tambourine performance in Cyprus (and its iconography) is the result of the presence of Phoenician population on the island by the 8th century BC. According to this view, the Phoenician populace exerted their cultural influence on the autochthonous element of Cyprus and diffused the Syro-Palestinian iconographic types that had been established by the end of the Late Bronze Age (Bisi 1966).

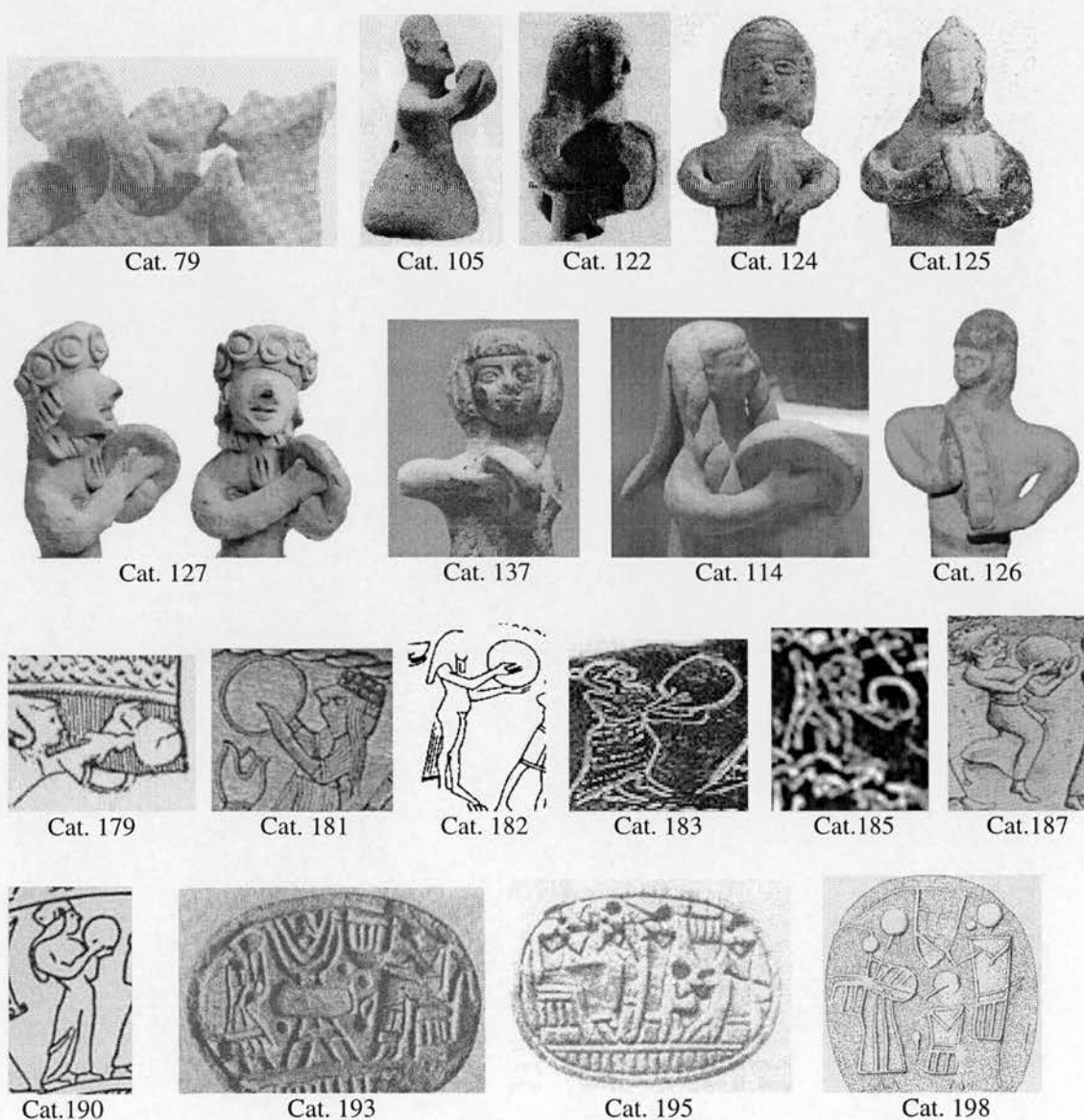


Fig. 5.11: Iron Age tambourines, Type A. Cat. 79, 105, 122, 124-7, 179, 181, 182, 183, 185, 187, 190, 193, 195, 198

Cat.114 of the Larnaca-Kamilarga workshop deserves special attention, owing to its connection with Levantine artefacts and with regarding the issue of Phoenician presence and influence on the culture and material production of Cyprus. It is particularly well made, with delicate facial features, an egyptianising wig with twisted locks on the sides of the face⁴⁸ and a convincing representation of tambourine-playing demonstrating the customary tilt of the instrument during performance. It was found in Tomb 276 at Amathus. In Cyprus three more tambourine players of the Larnaca-Kamilarga workshop present the same hair locks, but their facial features are soft and blunt in comparison with those of Cat.114 and are made of a different mould (Fig. 5.12b; *Coroplastic vA*, 69 cat. nos. II(xv)1, 2, fig. 33). The closest parallel to Cat.114 comes from a 9th/8th century BC tomb at Tel Shiqmona in Palestine (Fig. 5.12c)⁴⁹ which belongs to “the Phoenician coastal cultural sphere of Israel-Palestine” (Braun 2002, 119) and has therefore been considered to be the work of a Phoenician, probably Tyrian, workshop (Gubel 1983).⁵⁰ Other scholars, however, have proposed that the Levantine artefact is of Cypriote manufacture and that the influence was channelled from Cyprus to the Levant, given that the hollow body is a typical feature of Cypriote coroplastic production since the Bronze Age (Meyers 1987).⁵¹ The striking similarities between the two terracottas from Amathus (Cat.114) and Shiqmona, both in the facial features and the modelling of the instrument, suggest that they were made in the same workshop, whose location is still debatable. The significance of the hollow body for Cypriote coroplastic is exemplified by Cat.105 which combines the tambourine-playing motif with the body of an actual bell with a hole opened at the top of the body for the suspension of the clapper in the manner that is usually observed with bronze and clay bells (see chapter 4.2.2 and Appendix II-Bells).

An export of a tambourine player with hollow body from the Cypriote workshops has been found in Samos (Cat.137) in strata dated between 670-660 BC. In terms of facial features Cat.137 is closely associated with the soft and rounded egyptianising features of the Larnaca-

⁴⁸ Such twisted curls are associated with Hathoric images (Meyers 1987, 117).

⁴⁹ Braun 2002, 121 fig. IV.2; Karageorghis & Hermay 1987, 17-8, figs. 2, 3; the latter also mention another example from Tyre.

⁵⁰ Fourteen such terracottas with more or less egyptianising features and hollow bell-shaped body have been found in Palestine, but Braun is reluctant to ascribe them all Phoenician workmanship since hollow bodies are found among Hebrew/Judean terracottas and indicate the process of acculturation between Phoenician and Judean population (Braun 2002, 119).

⁵¹ Similarly, the excavators of Cat.114 from Amathus conclude that “for the time being we believe there is no reason why we should consider all or even any object, particularly terracottas of a “Phoenician” type as imports” (Karageorghis & Hermay 1987, 17 n. 16). It should be noted that the characteristic hair locks and hollow body of Cat.114 are also found in terracottas with upraised arms from Arsos and Idalion (*Coroplastic vA*, cat. nos. I(i)7-11, pls. I: 6, II:1-3); see also Karageorghis & Hermay 1987, 17 n. 14.

Kamilarga workshop seen in Fig. 5.12b, whereas the related Cat. 114 and the figure from Shiqmona have sharper facial features and larger tambourines. The class of tambourine players with hollow body and an egyptianising wig includes another variation from the Palestinian coast with Phoenician influences (Fig. 5.12d, e); this time the hair locks are not twisted and the instrument played is smaller. The features of these figurines may have influenced the handmade, solid and mass produced terracottas of Type B from the Amathus workshop that hold a disc with both hands (see section below).

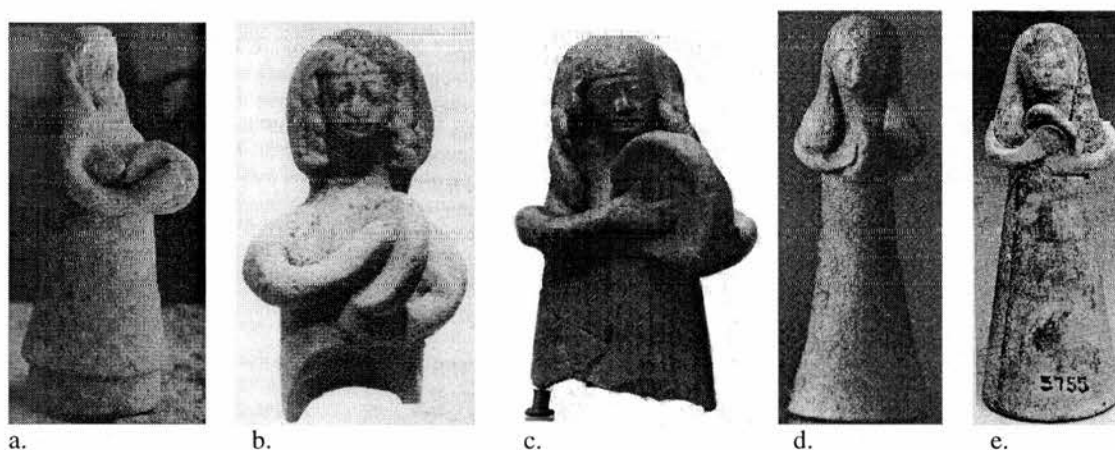


Fig. 5.12: Bell-shaped tambourine players: a) From Nebo. 11th-10th century BC (after Braun 2002, 123 fig. IV.4). b) From Cyprus, Larnaca-Kamilarga workshop. Pierides Foundation Museum (after *Coroplastic vA*, 69 fig. 33). c) From Shiqmona (after Braun 2002, 121 fig. IV.2). d) From Achzib (after Braun 2002, 120 fig. IV.1). e) Unknown provenance. Harvard Semitic Museum (after Meyers 1987).

Apart from the terracotta from Samos, tambourine representations of Type A in the Aegean are found mainly on musical scenes depicted on “Cypro-Phoenician” bronze bowls from Olympia (Cat.187) and Sparta (Cat.190) that are most probably imports. A bronze bowl from the Idaean cave in Crete, which is considered to be of local manufacture, may also include a tambourine player in the scene (Cat.179), but the rendering is not clear and, as the figure is not grouped with the other musicians represented on the opposite side of the frieze, she could be engaged in another activity instead, such as pouring a libation. The fragments of the bowl from Lefkandi (Cat. 186) have not preserved a tambourine player, but it is probable that such a figure was included in the music ensemble, in analogy with the bronze bowls from Idalion (Cat.181) and the scene on a similar bowl from Teheran (*Bowls* 347, U6) that are among the earliest in the series.

Female dancers playing the tambourine and thus bringing it above the head in the course of their dance are also shown on seals of the Lyre Player Group, a class of artefacts which in

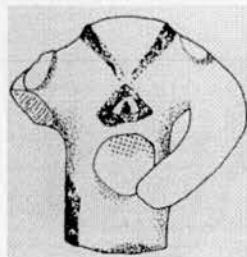
Greece and Cyprus is usually deposited in sanctuaries. The examples including a tambourine player come from the sanctuary of Ayia Irini in Cyprus (Cat.193), Apollo Daphnephoros at Eretria and Athana Lindia in Rhodes (Cat.195, 198) and the musician is part of an ensemble comparable to those depicted on the bronze bowls, and possibly employed for similar occasions. Unlike the eastern part of the Aegean that was directly influenced by the coroplastic production of Cyprus, the Greek mainland received the motif of the tambourine player only via orientalia such as luxury items (bronze bowls) and personal ornaments/amulets (seals of the Lyre Player Group). From Cyprus the iconographic Types A and B (the latter discussed below) were also disseminated in the Phoenician colonies of Sicily, Sardenia and the Punic world from the 7th century onwards (Bisi 1966), where they were produced following the local trends which were also influenced by the Greek sculptural style of the Archaic period (see below, Fig. 5.16c).

Type B) Tambourine held parallel to the upper body, played with both hands (Fig. 5.13)

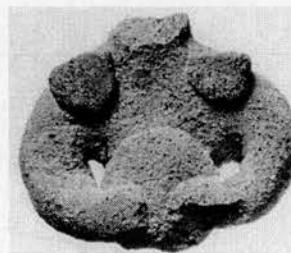
- (C) **103) Figure with tambourine (disc) and rattle pendant.** *MFF* 76.1.7. From Cyprus, Amathus, grotto at the slope of the Acropolis.
- 128) Female tambourine player.** *LM* Inv. No. AM 30 (75.87.1). From Cyprus, Amathus Acropolis.
- 136) Female with tambourine.** Samos exc. No. T2161. From Samos, Heraion Sanctuary.



Cat. 136



Cat. 103



Cat. 128



a.

Fig. 5.13: Iron Age tambourines, Type B. Cat. 103, 128, 136. a) Terracotta figure from Amathus, Tomb 199. *LM* (after *Coroplastic vA*, cat. no., I(ix)1, frontispiece).

The type of the nude tambourine player with the instrument flat in front of the body, played with both hands, that was encountered in the Bronze Age is also found in the Iron Age. The earliest known example from a datable context comes from the Heraion at Samos and is dated at the late 8th century BC (Cat.137). Like its Bronze Age prototypes, it is a terracotta plaque

representing a nude female figure with prominent ventral area and depressed umbilicus, holding the frame drum flat in front of the chest and playing it with both hands placed near the bottom section. The plaque is handmade and the figure does not appear to wear jewellery this time, but the Bronze Age type is basically unaltered and the performance of the instrument is rendered with accuracy. Schmidt classified it as Cypriote work (Schmidt 1968, 5) and the modelling of the body recalls the LC:III tambourine player that we have discussed. The small hands without plastic fingers, pressed on the discs, are characteristic of Cypriote production (see previous Type A).

Terracotta figurines that follow this motif also become popular in Cyprus during the Cypro-Archaic I/II period. They are handmade, solid, rendered in “snowman technique”, with a turban-like headdress and long hair falling on the shoulders, pellet nose and ears and painted facial features, a style that is attested from the mid-8th century BC onwards (see Fig. 5.13a for a complete specimen). Most of them come from Amathus and were produced by the local workshop; they were found in settlement deposits, in tombs as well as on the area of the Acropolis with the Sanctuary of Aphrodite (*Coroplastic vA*, 30 ff., cat. nos. I(ix)1-36, pls. XVII-XX.); Karageorghis & Hermay 1987; Hermay 2000a). The type was either exported or imitated by coroplasts at Idalion (Meerschaert 1991, 184; Caubet 1992, 130, Group 3) and Kourion (Young & Young 1955, 36 nos. 754-6), where similar figurines were deposited at the local sanctuaries.⁵² It is not clear whether they are male or female as there is no indication of their sex in their summary modelling. Most scholars describe them as female without justifying their view.⁵³ The discs are always plain and thin, but they vary in size. Cat.103 shows a relatively small disc that appears to be held with only one hand, whereas the size of Cat.128 is more representative of an actual small frame drum. Some examples, however, are too small to be convincing tambourine portrayals and they may actually represent a different object or offering, like a fruit for instance (Ferron 1969; Karageorghis & Hermay 1987; *Coroplastic vA*, 30 with a list of various theories).

The playing technique illustrated by our Type B has been discussed in the previous section. Much debate has been aroused by the interpretation of dressed female terracottas holding a disc/tambourine in this manner that are widespread in the Punic world from the end of 7th

⁵² At Kourion the main sanctuary was that of Apollo Hylates, but there were more sanctuary sites at Idalion, connected with Aphrodite kourotrophos, Athena (Anath) and Apollo/Reshef Mikal (Caubet 1992, 137 ff.).

⁵³ Bisi 1980, 60; *Coroplastic vA*, 30; Karageorghis had previously tentatively suggested that they were male (Karageorghis & Hermay 1987, 19).

century onwards, as we have already noted (see below, Figs. 5.16 b and c). Some scholars consider them as divine and identify them with Astarte/Aphrodite (Ferron 1969), while others prefer to interpret them as mortal tambourine players at the service of the deity like their Old Babylonian antecedents (Bisi 1966 and 1980). The mass production and lack of attributes of the Cypriote examples strengthens the view that they are depictions of mortals. In some instances they wear a bell pendant or jingle, as in the case of Cat.103, possibly alluding to a dance performance (see previous discussion in chapters 4.2.2 and 4.3.1.3).

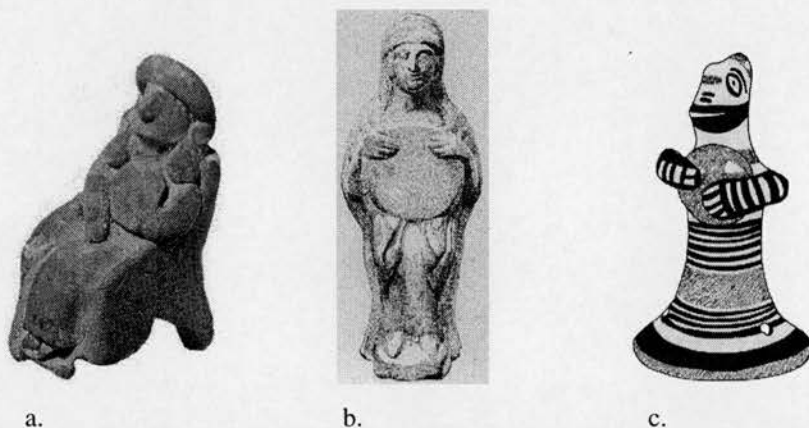


Fig. 5.14: a) Enthroned figure with disc/tambourine. From Cyprus, Idalion. CA:II. *MMNY* Inv. No. 74.51.1685 (after Karageorghis 2000, 149 no. 237). b) Enthroned female figure holding a tambourine. From Lindos, Rhodes. 525-400 BC (after Blinkenberg 1931, pl. 101:2215). c) Bell-shaped male tambourine player with mobile legs. From Cyprus. Oxford, Desmond Morris Collection, DM-B1-98 (after *Coroplastic iv*, 43 fig. 22).

One example, however, presents an enthroned figure holding a disc in front of her upper body, while her other arm rests on her lap (Fig. 5.14a). The figurine is reputedly from Idalion and is dated to the late CA:II period (*Coroplastic vA*, 34, cat. no. I(x)3, pl. XX:11; Karageorghis 2000, 159 no. 237; Myres 1914, no. 2180). Enthroned figures are rarely found in this class of artefacts.⁵⁴ Both the dignified pose of this figure and the fact that it is seated in a throne suggest that it is of high status or even of divine nature. This would make it one of the earliest representations of the instrument in the hands of a goddess, anticipating the later motif of a seated female deity (Kybele, Hestia) holding a tambourine that becomes common from the Classical period onwards, as we have already noted (chapter 5.0; also see below, n. 60). Another seated female figure on a plinth holding a large tambourine on her lap comes from the Sanctuary of Athana Lindia at Rhodes (Fig. 5.14b); it was found in the Grand Deposit and it belongs to Blinkenberg's "transitional" class of artefacts dated between 525-400 BC. The

⁵⁴ Compare with the enthroned bearded and horned terracotta figure from Meniko sanctuary, dated at the 6th century BC, of the Syro-Phoenician god Baal-Hammam who is sitting in a similar throne with footstool (Karageorghis 1977b, 35ff., pl. VI:1; Vandenabeele 1986, 354, pl. XXX:1).

modelling of this terracotta in the Classical Greek style does not diminish the importance of the Cypriote iconographic connection; both the Cypriote and the Rhodian figure are of small scale, not exceeding 0.12 in height. Blinkenberg, however, does not consider the figure from Lindos to be of divine nature (Blinkenberg 1931, 536 no. 2215).

The motif of holding a disc perpendicular to the body with both hands, an action that we have interpreted as tambourine-playing, is also found with a terracotta belonging to the class of bell-shaped figurines with mobile legs (Fig. 5.14c). This time the instrument is played by a bearded male wearing a pointed cap (Morris 1985, pl. 206; *Coroplastic iv*, 43, cat. no. I(viii)20, fig. 22). Unfortunately the figure is without provenance, but it shows the flexibility of the Cypriote coroplast in adapting and combining set motifs freely with the various stylistic types in order to express a specific concept. The particular iconographic motif of Type B, so far found in connection with females, is associated in this case with male performance and is applied on a class of artefacts (bell-shaped figures with mobile legs) that comprise warriors as well as musicians and offering-bearers (for this class see chapter 4.2.2).

Type C) Tambourine held on the ventral area with one hand (Fig. 5.15):

- (C) 115) **Plaque of female with tambourine.** CM Inv. No. C598. From Arsos.
- 121) **Plaque of female with tambourine.** *Louvre* Inv. No. AM167. Probably from Lapithos.
- 134) **Female with tambourine.** Istanbul Archaeological Museum, Lindos 2043. From Rhodes, Sanctuary of Athana Lindia.
- 138) **Standing female with tambourine.** Samos, Vathy Museum Inv.No. T484. From Samos, Heraion Sanctuary.

This type is the product of Cypriote workshops, especially that of Arsos (Cat.115). A small number of figures of this type were also produced by the Lapithos workshop (Cat.121), and isolated instances are known from the workshops of Idalion, Achna and Amathus (*Coroplastic vB*, cat. nos. VI(iv)1-5, 50-1, 59 pls. LI:2, 3 and LV:3, 4, 7). These are mould made terracotta plaques showing a female nude or dressed figure in relief holding a disc of considerable size flat on the side of the ventral area with one hand, the other being relaxed by the side. The rendering of the dress is very fine and the material transparent, so that the emphasis of the anatomy of the female body is a characteristic feature of these artefacts. The known Cypriote material as well as a few exports of this class to the Dodecanese have been catalogued by J.

Karageorghis (*Coroplastic vB*, 190 ff. cat. nos. VI(i-iv), pls. LI-LV). Such terracotta plaques of considerable size (reaching 0.35 in height) are also found in the sanctuaries of the Heraion at Samos (Cat.138), Athana Lindia (Cat.134) and Kameiros at Rhodes; they are stylistically associated with the Arsos workshop. At least eight figures from Samos, some of them fragmentary, have been published (including our Cat.138) and they come from strata dated between 730-700 BC (Schmidt 1968, his Group 3, 29 ff., pls. 49, 51, 70). Blinkenberg has published 30 similar examples from Lindos (Blinkenberg 1931, 492 ff. nos. 2038-2068, pls. 92-94), although many of them are fragmentary and only a few have the tambourine preserved like our Cat.134; in Lindos the same type is also rendered in limestone (Blinkenberg 1931, 427 no. 1720, pl. 70).⁵⁵

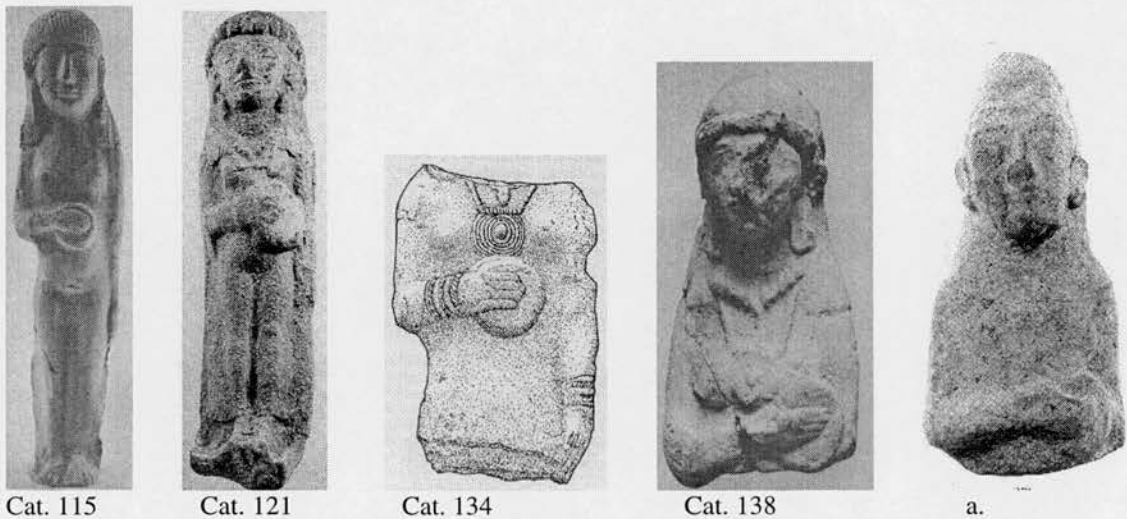


Fig. 5.15: Iron Age tambourines, Type C. Cat. 115, 121, 134, 138. a) Male mould made terracotta figurine holding a tambourine. End 7th- beginning 6th century BC. From Larnaca (site Aradippou) (after Caubet, Fourrier & Queyrel 1998, no. 278).

The pose of Type C is associated with that of Type B (holding a disc with both hands), and especially with the terracotta relief plaques of the Bronze and early Iron Age from Mesopotamia and the Levant that we have discussed in the previous chapter (5.3.1), thought to be cult images of fertility and alluding either to a deity or an attendant of the temple. This iconographic type never found its way to mainland Greece, although nude female figures of the Astarte type are not unknown in Greece.⁵⁶

⁵⁵ For an example from Kameiros (*BM Inv. No. B130*) see Schmidt 1968, pl. 126

⁵⁶ See for instance Dawkins et al. 1929, pl. XXXVI:2 for a terracotta plaque from Artemis Orthia at Sparta, and Karageorghis 1998 for four gold plaques from Naxos.

Three male mould-made terracotta figures, now in the *Louvre*, assume the same pose as the female plaques, holding a disc/tambourine with one hand on the side of the abdomen (Fig. 5.15a). The only complete example was found in Syria and is wearing a pointed cap and long dress, but the other two figures were found in Cyprus and are associated with the Arsos workshop (Caubet, Fourrier, S. & Queyrel 1998, nos. 270, 272, 278); it is thus conjectured that the figure found in Syria was of Cypriote manufacture (Caubet, Fourrier, S. & Queyrel 1998, 183). The adaptation of a motif long associated with females to the iconographic type of a male with pointed cap is indicative of the flexibility that characterises the Cypriote coroplast, a feature that we also observed in our discussion of Type B (see above, Fig. 5.14c). It is surmised that this flexibility reflects the practice of tambourine being played not only by females but also by males, possibly in both the religious and the secular sphere.

D) Large tambourine held with both hands in front of the lower body (Fig. 5.16)

Type D comprises only two examples, one (Cat. 74) known to come from Crete and the other (Cat. 75) attributed to a Cretan workshop by analogy:

- (C) **74) Plaque of female with tambourine.** *MMNY* Inv. No. 53.5.22. From Praisos, Crete.
- 75) Plaque of female with tambourine.** *BM* Inv. No. 1955.11-23.1. Possibly from Crete.

These are mould-made terracotta plaques showing in relief a female figure dressed in a long dress; the neck-line and fine folds of the drapery are delineated with care and the feet are seen below the seam of the dress. The figure has hair along the contour of her face and a large disc that is suspended from her neck, reaching the ventral area. This type is closely related to the Types B and C already discussed. The emphasis given on the dress of the female figure is characteristic of the class of tambourine players from the Levant and the Punic world between the 7th-5th centuries BC which play the tambourine while holding it perpendicular to the body (Type B) (Fig. 5.16b, c).⁵⁷ Like Type C, the figures of the Cretan plaques do not play the instrument, but hold it in front of the lower body.

⁵⁷ The North African figures are discussed by Ferron 1969 and Bisi 1980. For several examples and recent bibliography on this class of artefacts see Stampolidis & Karageorghis 2004, nos. 584, 587-9.

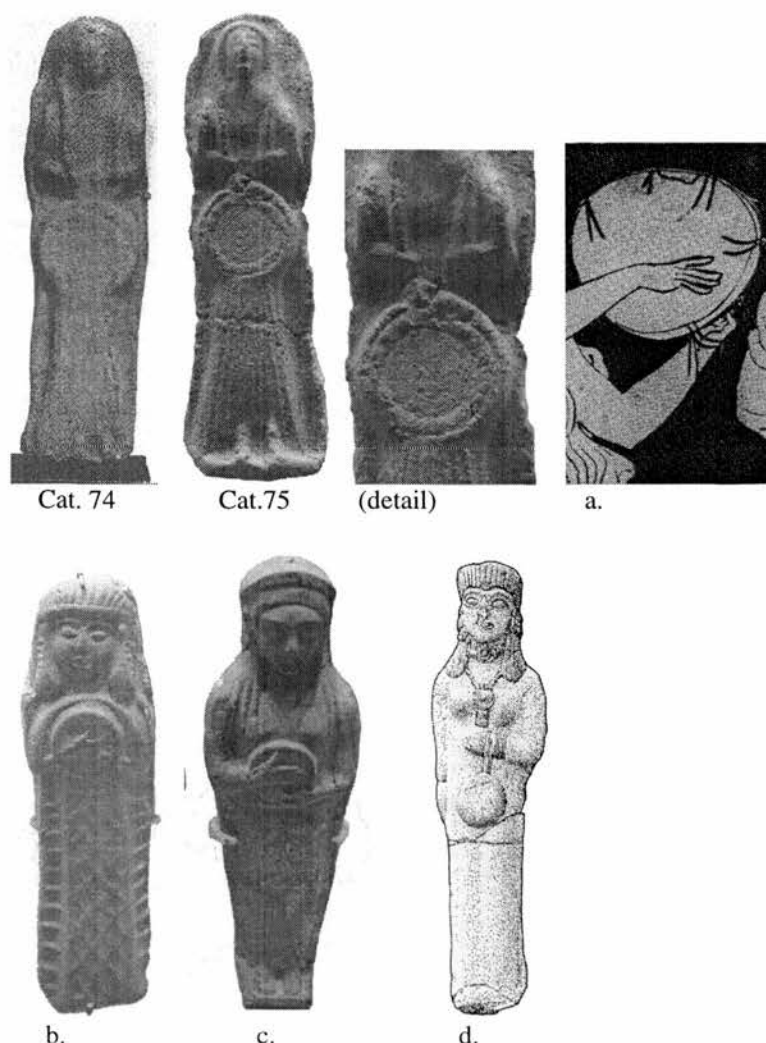


Fig. 5.16: Iron Age tambourines, Type D. Cat. 74, 75 (and detail).

a) Detail of tambourine with suspension cord. Stamnos. 420 BC. Napoli Archaeological Museum (after Michaelidis 1989, 328, pl. X).

b) Plaque from Tell Ahmar (photo by author).

c) Statuette from Carthage (photo by author).

d) Terracotta from Idalion, Sanctuary of Aphrodite (after *Coroplastic vB*, 193 fig. 40).

Higgins interpreted the object as a tambourine, but some scholars have suggested that a shield is represented instead (Higgins 1967, 28; Matz 1970, 97).⁵⁸ The rendering of the rim of the circular object demonstrates the grooves-and-ridges modelling that we have encountered in Late Bronze and Early Iron Age representations of terracotta tambourine players from Israel/Palestine, as well as on the 13th century BC fresco from Egypt (Fig. 5.9d, chapter 5.3.1). The size of the object is comparable with the large tambourines played by the male Cypriote terracottas from Amathus and Ayia Irini (Cat. 114 and 126); similar large instruments are depicted on the bronze bowls from Idalion, Salamis and Kourion in Cyprus (Cat. 181, 182 and 183). All these examples show the use of large drums in both Crete and Cyprus in the 7th-6th centuries BC, reaching over 0.45 in diameter. The suspension of the instrument from the neck does not have parallels, but it could have facilitated the carrying and playing of a large

⁵⁸ The shield seen on a terracotta plaque of a warrior from Praisos in Crete, displayed with Cat. 75 in the British Museum (Inv. No. GR.1907.1-19.60), is rather different, as it is bigger and has a central boss instead of the ridges-and-grooves at the circumference.

instrument by keeping it in place. Shorter suspension cords with large tambourines are seen on Classical representations (Fig. 5.16a); a Cypriote clay statuette from Idalion, now in Berlin, has a small frame drum suspended from her wrist (Fig. 5.16d; *Coroplastic vB*, 192-3 cat. no. VI(i)1, fig. 40; Brehme et al. 2001, 105 no. 94). In general, however, there are no parallels for this particular attitude represented on Cat. 74 and 75 which do not conform to the usual representations of playing or holding the instrument.

The high cheekbones, thin nose, long hair and the tall, thin silhouette are characteristics that can be found in other Cretan works in stone and metal.⁵⁹ Similarly, the motif of holding a large tambourine in front of the lower body is of local inspiration (as it was in the case of the tambourines/gongs/shields depicted on the bronze votive sheet from the Idaean Cave discussed in chapter 4.2.1) and is not encountered outside Crete. It is tempting to hypothesise that the figure with the large tambourine at hand is divine, perhaps an image of Kybele/Mother of Gods holding and *not* playing the *tympanon*, as observed in later representations of the deity (see previous Figs. 5.1 and 5.14a, b); if so, this would be the earliest evidence of the goddess depicted with the instrument. The latter is usually not included in the representations of the deity prior to the 4th century BC.⁶⁰ The solemn and hieratic aspect of the figure would seem to corroborate this view, although it should be noted that the distinction between divine and mortal dressed tambourine players from the Punic world is not clear (Ferron 1969; Bisi 1980), whereas those from Israel/Palestine are considered to be “domestic icons or objects with sacral-secular and perhaps aesthetic significance” (Braun 2002, 126; also Meyers 1987, 122) and none of the Cypriote tambourine players (or other musicians indeed), especially those of the related Types B and C, has been thought to be divine.

⁵⁹ See for instance the taut figures seen on bronze bowls from the Idaean Cave (*Bowls*, Cy.7) and Eleutherna (Stambolidis 1988, 181 fig. 15) that are of oriental artistic inspiration and local manufacture (Hoffmann 1997).

⁶⁰ For the pre-Classical symbols and early imagery of Kybele (Mistress of Animals, kourotophos, seated female with lion, female in naiskos) *LIMC VIII*, s.v. “Kybele” and Hermayr 2000b (who also notes the absence of the tambourine, p.197), but compare with previous discussion of seated figures with tambourine from Lindos and Cyprus (Type B).

6. Imagery Typology

The versatility of the musical imagery of the EIA makes it difficult to classify the musical scenes and devise strict categories. In order to construct a musical imagery typology, one needs to take into account the compositional syntax and the compositional elements of the scene in combination with each other. It is important to stress, for example, the differences in the representation of isolated musicians (Type II), the different syntax of the scenes including quadrupeds (Types Va:4, Vb:2, 4) or the fact that there are many ways in which the motif of juxtaposed figures is applied (Types IIIc:1 and 2, IVb, IVc, Va:3, VII), as these details may provide information on the message that the scenes convey. Nevertheless, it is equally important to emphasise that the scenes grouped under the same category share common features in their composition. A microtaxonomical approach was necessary in order to incorporate all the subtleties and degrees of differentiation in representation, but at the same time it was unavoidable that certain elements of the image were given priority over others in the process of classification. Interpretation of the content and meaning of the scenes to a certain extent was essential in order to group together the scenes under the categories V-VII, especially with regard those images where the compositional elements could be both symbolic and alluding to real life events and situations, like for instance images including animals, everyday and/or ritual objects. In these cases, the syntactical arrangement was the primary key for differentiating among the scenes. Despite these considerations, the scheme presented in Table 6.1 is a concise guide of the iconographic variants of the EIA musical scenes that also provides statistical information about the recurrence or rarity of the different types of musical imagery. The artefact group or groups where each iconographic variant is found are indicated on the right column (Artefact Type).

IMAGE TYPE	ARTEFACT TYPE
I) Instrument without musician a) Combined with other compositional elements in frieze or panels (birds, quadrupeds, starfish, scorpions, human figures, vases, chequered table (altar?)) (Cat. 37, 38, 44, 48, 50, 52) b) Isolated (Cat. 154, 155, 171, 172, 173, 201)	(VP) (MV), (SL)
II) Single musician in various poses - isolated a) Standing (Cat. 42, 61, 73, 74, 75, 881, 82, 83, 84, 86, 87, 88, 93, 94, 95, 97, 99, 100, 101, 102, 103, 105, 106, 107, 108, 109, 109a, 110,	(VP), (C), (MF), (MV),

111, 112, 113, 114, 115, 116, 119, 121, 122, 123, 124, 125, 126, 127, 128, 131, 133, 134, 136, 137, 138, 139, 140, 147, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 154, 175, 191, 205, 207, 209, 210, 215)	(S), (F)
b) Seated (Cat. 144, 145, 146, 148, 149, 150, 153, 170, 176, 177, 203)	(MF), (F)
c) Kneeling (Cat. 204, 211, 216)	(F)
d) Squatting (Cat. 212, 214)	(F)
e) Unknown (fragmentary) (Cat. 213, 217, 218)	(F)
III) Musician and dancers - isolated	
a) Linear arrangement without receiving entity:	
1) Musician leading (Cat. 1, 6, 23, 29, 30, 32)	(VP)
2) Musician in the middle (Cat. 40, 45, possibly 53 (fragmentary))	(VP)
b) Linear arrangement with receiving entity: musician in the middle (Cat. 4)	(VP)
c) Arrangement in juxtaposition:	
1) Musician is the receiving entity (Cat. 20, 31, 33, 49, possibly 51 (reconstruction uncertain))	(VP)
2) Musician in the middle (Cat. 2, 24, 25, 26, 27, 28)	(VP)
d) Ring dance arrangement (Cat. 76, 77, 78, 79, 80, 98, 104, 117, 132, possibly 72 and 142 that are missing their lower part)	(C)
IV) Group of musicians - isolated	
a) Musicians in linear arrangement (Cat. 16, 17, 18, 19)	(VP)*
b) Musicians in juxtaposition (Cat. 43 (fragmentary), 198)	(VP), (SL)*
c) Two juxtaposed figures with one instrument (Cat. 55, 56, 188, possibly 54 (fragmentary) and 51)	(P), (M)
V) Musician(s) combined with religious/symbolic compositional elements (enthroned figures, warriors, dancers, monsters, sacrificial animals or quadrupeds, birds, ritual objects, altar)	
a) Continuous narrative arrangement:	
1) Musical procession towards seated figure (Cat. 179, 180, 181, 183, 190, 195)	(M)*, (SL)*
2) Musical procession towards seated figure including sphinxes and warriors (Cat. 3, 186)	(VP), (M)*
3) Musicians in juxtaposition, with combinations of different	(VP)*, (SL)*

compositional elements between the figures (table, vase, shield, bird, cauldron, chequerboard) (Cat. 7, 8, 9, 10, 11, 12, 13, 14, 15, 193)	
4) Musician with quadrupeds (Cat. 39, 143 (as reconstructed))	(VP), (M)
5) Musician in naiskos (Cat. 85)	(C)
6) Musician with griffin (Cat. 194, 199)	(SL)*
7) Musician with bird (Cat. 196, 197, 200, 208)	(SL)*, (F)
8) Ring dance arrangement (with additional dove-cote and cauldron) (Cat. 118).	(C)
b) Arrangement in panels:	
1) Musical procession, seated figures with table of offerings (Cat. 187)	(M)*
2) Musician, quadrupeds (Cat. 35, 96)	(VP), (C)
3) Musician, figure with vase (Cat. 36)	(VP)
4) Musician and figure with vase, quadrupeds, erotic scene (Cat. 192)	(SL)
c) Additive arrangement:	
1) Musician on kernos (Cat. 89)	(C)
VI) Secular imagery with possible religious connotations	
a) Symposium scenes (Cat. 182, 185)	(M)*
b) Military context (Cat. 34, 184)	(VP), (M)*
c) Contest/games context (Cat. 5, 21)	(VP)
d) Musician on horseback (Cat. 90, 91)	(C)
e) Musician on cart (Cat. 92)	(C)
VII) Divine musicians and daemons (antithetic arrangement) (Cat. 46, 178, 189)	(VP), (M)
VIII) Animal musician	
a) Seated simian (Cat. 151)	(MF)
b) Squatting simian (Cat. 152, 206)	(MF), (F)
c) Bells on horses (Cat. 41, 60, 120)	(VP)
IX) Unknown (too small fragment of a scene) (Cat. 22, 47)	(VP)

Table 6.1: EIA musical imagery typology

(M)* = "Cypro-Phoenician" bronze bowls

(SL)* = Seals of the Lyre Player Group

(VP)* = Scenes of the Rattle Player Group

7. Conclusions

In this chapter, I will attempt to give a synopsis of the information that has been extracted from the iconographic analysis of scenes with musical imagery from the Bronze and Iron Ages in Greece and Cyprus. From the methodological point of view, the attention to the typological varieties of musical instruments was fruitful, and the examination of musical scenes in combination with the archaeological material has provided new information on the classes of aerophones, membranophones and idiophones.

In particular, the performance of instrumental types which were previously considered to be absent from the Greek and Cypriote musical repertoire prior to the Archaic period, has been demonstrated. Such was the case of clappers, bells and cymbals, whereas it has been also argued that the kettle drum was known in the Aegean and Cyprus. In contrast to the prevailing scholarly opinion, our review of the iconographic, archaeological and literary evidence has highlighted the importance that idiophonic instruments had in Greece, and has outlined the cultic significance of idiophonic sounds in various contexts. The rattle iconography has been examined in great detail and new interpretations have been offered for associated LBA scenes as well as for the EIA scenes of the Rattle Group. Related issues, such as the use of rattling jewellery and the iconography of bell-shaped figures, have also been addressed, revealing the subtle ways in which allusions to the use and sounds of idiophonic instruments can be made in non-musical representations. Furthermore, aspects of instrument-decoration and its symbolic meaning have been discussed; in particular, the symbolic decoration of the Minoan *seistron* and the anthropomorphic bells and rattles from Cyprus are issues addressed for the first time here, and which have provided information on and offered an insight into the concepts associated with the performance of these instruments in Minoan Crete and Iron Age Cyprus. The iconographic analysis also revealed evidence for musical cheironomic gestures in Bronze and Iron Age iconography and for the importance of rhythm keeping, as it is manifested by representations of hand clapping. The examination of wind instrument representations addressed those iconographic details that distinguish the different types of double *auloi* as well as pipes/whistles, flutes and trumpets in the EIA; the playing of bullroarers and triton trumpets has also been proposed for some scenes.

Our analysis has shown that, in many respects, there is continuity of the Bronze Age musical practices into the EIA. Continuity is observed in the use of instruments with strong cultic significance, the playing of which was probably bound to ritual performance. For instance,

this is exemplified by the representation of *elymos aulos* on the LM sarcophagus from Agia Triada and on the PG bronze stand from the Sanctuary of Hermes and Aphrodite at Syme Viannou (Cat. 143), where the playing of the instrument is associated in both cases with the sacrifice of animals. Similarly, the lyre and *aulos* ensembles which are found in the iconography of the EIA (Cat. 21, 29, 179-187, 190, 195) are preceded by the iconography of the Agia Triada sarcophagus and by the Near Eastern tradition that combined the playing of both instruments in scenes of religious character since the beginning of the Bronze Age.

The use of rattles and *seistra* in connection with cult and magic is another diachronic phenomenon. Rattle and *seistron* playing are found during the LBA in the context of a religious ritual possibly ensuring fertility (Kalavarda Rhyton), and in association with funerary ritual (Episkopi larnax). The latter can be paralleled in the Iron Age with the deposition of rattles in burials in Greece, and with the anthropomorphic rattling soldiers (RA.20) mounted on the chariot of the deceased buried at Salamis (Tomb 79) in Cyprus. Religious performance context has also been postulated for some of the LG Rattle Group scenes, whereas the deposition of *seistra* at the sanctuaries of Hermes and Aphrodite at Syme Viannou and of the Heraion at Samos indicate the undying religious association of shaken idiophones, in particular with fertility and initiation rites. Another example of continuity is the set of religious concepts behind the playing of the triton trumpet; this has been demonstrated through the examination of the archaeological context of Bronze and Iron Age triton trumpets and through the analysis of the EIA innovative imagery, which have been shown to reflect similar considerations with regard to prosperity, regeneration and the Afterlife.

Ring dances are also performed without interruption in the Bronze and the Iron Ages. Although the LM ring dancers from Palaikastro, with a lyre player in the middle, were originally found separately and have been reconstructed in this arrangement (Bosanquet & Dawkins 1923, 88, fig. 71; also chapter 2, Fig. 2.6), the details of the lower part of the figures' dresses suggest that this reconstruction, showing three female dancers on a platform with the musician in the middle, may well be correct.¹ The area where the Palaikastro dance group was found has been interpreted as a domestic shrine, and it is possible that similar religious dances were performed on the Greek Mainland. A Mycenaean terracotta ring dance

¹ Dawkins remarked on the roughness of the base of the figures, which suggests that the figures must have stood on a flat clay platform. He also noted that the back of the skirt of the figures reconstructed as ring dancers was longer in order to be attached to the platform where upon they stood; this was not the case with the skirt of the lyre player in the middle of the circle dance, whose support "spread out on all sides" (Dawkins 1903-4, 219).

(LH:IIIB), displayed in the British Museum (Inv. No. GR1996.3-25.1, previously in a private collection), omits the platform and the musician and shows three figures with pinched noses standing on the periphery of a ring. The theme of the ring dance becomes very common in Cypriote coroplastic from the late LC:III-early CG:I period onwards, suggesting that the custom was widespread in the Eastern Mediterranean. In Cyprus the dancers are associated with sanctuary deposits; they are usually placed on platforms and are often accompanied by a musician in the middle (Cat. 76, 77, 78, 79, 80, 98, 104, 117, 118, 132; *Coroplastic ii*, 64). In Greece, EIA three-dimensional representations of ring dancers omit the musician in the middle following the Mycenaean prototype,² but in vase painting the musician is often placed in the middle of a file of dancers (see Table 6.1, Types IIIa:2 and IIIc:2); this particular compositional syntax may have been intended to suggest ring dances.

Evidence for continuity in musical practices is offered also by the performance of the mimetic combat dance, which we have argued that is represented in the LBA on a fresco from Thera (Xeste 3; Fig. 4.58b), the dance also being accompanied by lyre playing and hand clapping. Similarly, the armed dance known as *pyrrhiche*, which was performed in Iron Age Greece, is usually represented being accompanied by music (lyre or *auloi*) and by the snapping of fingers, an action comparable to hand clapping, that emphasised the rhythm. With regard to the EIA, it has been suggested that the combating warriors with Dipylon shields which are depicted on the LG Copenhagen Kantharos (Cat.5) are actually dancers who perform mimetic combat dances as part of the games (Ahlberg 1987), thus providing the iconographic link demonstrating the continuity of this practice from the LBA to the Classical period.

The use of cheironomic gestures in order to conduct a musical performance, and the association of cheironomy with the playing of shaken idiophones are also practices that are attested in the Bronze Age and continue into the Early Iron Age. The examination of the Harvester Vase from Agia Triada (Fig. 4.65b) has shown that the Bronze Age *seistrion* player was also conducting the following singers with cheironomic gestures; a similar method of conducting has been observed on certain LG scenes from Boeotia (Cat.33) and Athens (Cat.15). The association is clearer with one of the Rattle Group scenes (Cat.15), where two rattle players are coupled with one lyre player and a cheironomist. The gesture of “bent and crossed arms” that is represented on Minoan logograms and which has been thought to

² See for instance the LG bronze groups of ring dancers from Olympia in the Museums of Athens, Olympia and Berlin (Rolley 1967 no. 1; Thomas 1992, 55 no. 40).

signify music-making with the accompanying cheironomical gestures, is also acquired by a few Geometric bronze figures; the considerations regarding the secure identification of this gesture as cheironomical have also been addressed.

Tambourine playing and hand clapping are manifested pictorially in Cyprus from the LBA onwards and they continue to be represented in a similar manner during the EIA. Representations of kettle drums in the Aegean from the Bronze and Iron Age suggest that membranophones were not unknown, but continuity in practice is doubtful in this case, as neither the playing technique of the drums nor the performance contexts shown on the MM seal from Archanes and on Cat.4 are identical. In general, the playing of membranophones is obscure during the Bronze and the Early Iron Ages in Greece, although from the myth of the Kouretes beating their shields it becomes clear that percussion was closely associated with important religious practices and regeneration rituals since an early date, and possibly also with initiation rituals during the EIA.

Although there is undeniably an underlying layer of long lasting religious beliefs which is manifested through a number of common features that permeate the musical practices of the Bronze and Early Iron Ages in the Aegean, in most cases the pictorial manifestation and visual realisation of these concepts in the EIA is achieved by using different iconographic motifs or re-using traditional motifs and symbols in different syntactical arrangement. A characteristic example of the former is the iconography of simian or simian-like triton players (Cat. 149, 151), a new and unprecedented motif that appeared in the 8th century BC, and which expressed successfully the concepts that were associated with the use of triton trumpets in the Bronze Age. Similarly, the PG bronze from Syme Viannou playing the *elymos aulos* (Cat.143) has been given a simian-like, daemonic appearance, unlike its Bronze Age prototype from Agia Triada sarcophagus, and despite the fact that in both cases the *aulos* is played in the course of an imminent sacrifice. The iconography of rattle playing also exhibits dramatic changes in the EIA. Now the musicians are seated and performing in groups or together with lyre players, and it has been argued that this fact indicates the use of complicated rhythms and the appreciation of the musical qualities of shaken idiophones beyond their cultic associations.

The use of the bird motif in connection with lyre playing is an example of Bronze Age symbolic imagery with fundamental religious connotations which is also employed in the EIA, but whose application gradually undergoes subtle alterations. The Bronze Age

iconography of lyre player surrounded by large birds³ is thought to indicate the religious setting of the performance and possibly divine epiphany.⁴ The closest parallels for the Bronze Age motif of lyre player in the presence of a large bird with open wings (flying) that may represent the divinity, are the representations on LG seals of the Lyre Player Group, that preserve the Bronze Age compositional syntax (Cat. 196, 197, 200), which are nevertheless thought to be of North Syrian or Cilician manufacture (Boardman & Buchner 1966; Boardman 1990) and imported to the Aegean as talismans. Bronze Age symbolism also permeates the scene on a Geometric sherd from Smyrna (Cat. 50), with a bird shown above the lyre recalling the arrangement on the LM pyxis from Kalami (see previous note 3). A bird has been included in the reconstruction of the terracotta ring dance from Palaikastro (Bosanquet & Dawkins 1923, 88, fig. 71), a feature that is found again on the CG terracotta from Idalion (Cat. 118), with a lyre player, a dove-cote and a cauldron in the middle of the ring dance. On other representations, however, the focus of symbolic meaning is shifted from the notion of divine epiphany to that of the religious ceremonial sacrifice. This is noted already in the end of the Bronze Age, with the LC scene on the Cypriote kalathos from Kouklia (Cat. 35), where birds are shown in panels adjacent to the lyre player (Cat. 35) who is facing towards a possible sacrificial animal and another figure enclosed in a separate panel in front of him. On a CG amphora (Cat. 38), the bird-and-lyre combination is also segmented in panels and enriched with additional panels depicting quadrupeds, vases and a chequered table (altar?), a composition apparently alluding to a ceremonial feast including liquid offerings and the sacrifice of the animals. In these cases, the painter retrieves his pictorial motifs from well established religious practices, but the compositional syntax that he employs is new and differentiates his message from that of the Bronze Age. A symbolic assortment of different animals, including birds, is also surrounding the lyre shown on a LG kotyle from Rhodes (Cat. 48). But what is radically innovative in the application of the bird-motif in the EIA is its association with the cultic use of idiophonic instruments rather than with lyre-playing. For instance, birds are shown above the cauldron and the chequerboard that are placed between the rattle players depicted on two scenes of the Rattle Group (Cat.

³ See for instance the representations of lyre players on the Pylos fresco and on the pyxis from Kalami (*Aegean* 69, pl. 13; *Stringed* pl. 2b; Tzedakis 1970; Kanta 1980, fig.93:8-10) and the file of birds below the panel showing harp players on the bronze stand from Cyprus (Catling 1964, pl. 35d). The Pylos fresco has been reconstructed as showing a banqueting scene and including an altar with a sacrificed bull behind the lyre player (Carter 1995, fig. 18.8)

⁴ The representation of birds in connection with lyre players has been thought to denote the divine presence at religious feasts where lyres were played (Carter 1995). Furthermore, the decoration of Early Cycladic, Minoan and Classical lyres and harps with aquatic birds' heads has been thought to symbolise the divinity and at the same time allude to the beauty of the musical sound (Vorreiter 1975; Anderson 1994, 5), to symbolise the erotic power of music (*Aegean* 54), or to have religious/cosmological connotations and to express considerations regarding rebirth (Schaik 2001-2).

10, 12). Furthermore, aquatic birds decorate the bell-shaped dresses of some Boeotian bell-figures with mobile legs (Cat. 62, 63, 65). The Bronze Age association of the divinity with the form of a bird reappears in the EIA with the new form of bell-shaped figures with mobile legs (animate), bird-like long necks and, in some cases, with daemonic bird-like facial features (Cat. 68-71).

In many respects, the iconography of the EIA breaks with the Bronze Age tradition and allows the representation of instruments that must have been used prior to the early 1st millennium BC in the Aegean and Cyprus, but of which we do not have representations from the Bronze Age. This is the case with clappers, flutes and small pipes/whistles for instance. The archaeological evidence for bone whistles and flutes in Greece since the Neolithic period (AU. 10, 16, 25) makes it difficult to accept that their depiction in the EIA (Cat. 150, 153, 170) reflects a new musical custom, and it seems more plausible that such images were realised in a climate that fostered experimentation, considerable freedom in artistic expression and inspiration from other iconographic sources. The same has been argued for the clapper representations that appeared for the first time in the 8th century BC in Greece and slightly later in Cyprus, although clapper playing must have been a much older custom, probably originating from and associated with ancient hunting and agricultural practices. Contacts with Egypt and the Near East may have provided the necessary artistic and cultural environment inspiration for the introduction of clappers in the Greek musical imagery, but the Greek instrument has been shown to have a distinctive local character.

Instruments with magical connotations, such as the bullroarer, make their sporadic first appearance in the EIA, apparently reflecting contemporary customs among the population. With regard to wind instruments, trumpets, flutes, whistles and single reedpipes are shown for the first time in the EIA, played in a variety of performance contexts. The *syrinx* is also depicted in EIA Greece and Cyprus; in the former it is being played by male figures, and in the latter it is held by female figures in a manner recalling later iconographic representations of the god Pan holding his panpipes. In general, the playing of wind instruments becomes a favourable theme, with different types of double *auloi* accompanying dancers in Greek vase painting and Cypriote coroplastic. The playing of the long parallel iconographic variety of double *auloi*, that probably indicated instruments of the *mashura* type, may have been a Near Eastern/Egyptian influence; it is mainly found on representations from the Dodecanese and Cyprus, but also on examples of Greek vase painting, incorporated in the common music-and-dance motifs of the Mainland. The iconography of flute and single reedpipe playing in EIA Greece may be associated with comparable examples from Asia Minor and Urartu, but

the connection is not straightforward and the identification of the instruments in each case is difficult. The simian or simian-like figure playing the pipes was the result of Levantine and Near Eastern iconographic influence where the monkey musician was not an unusual motif (Spycket 1998; Langdon 1990). This symbolic iconographic transmission, however, has its roots in the Bronze Age, as monkeys playing the lyre are shown on the abovementioned fresco from Xeste 3 at Thera.

Cymbal playing is represented for the first time in EIA Cyprus, although the use of cymbals is attested from the 12th century BC with the bronze cymbals from Pyla-Kokkinokremos (CY.6); inspiration for the depiction of the instrument may have been provided by Syro-Palestinian pictorial prototypes and the production of cymbal player figurines may have been the result of the presence of Phoenician population on the island and the incorporation of a Levantine musical practice in Cyprus, mainly in association with religious performance. In contrast, the use of cymbals in the Aegean during the Bronze Age is still dubious, and representations of cymbal playing appear in the 6th century BC, associated with Cypriote and Near Eastern iconographic models. On the other hand, the Cypriote representations of clapper playing are based on Greek models, indicating that the interaction between Cyprus and Greece in the EIA was two-fold. The exchanges between Greece and Cyprus can be traced on the majority of musical representations, but there is not a straightforward pattern. Greek and Cypriote trends in music are quite distinct in the Bronze and Early Iron Ages, but at the same time they are comparable to each other. For example, the playing of triton trumpets and rattles in religious and funerary ritual respectively, or the use of bells, are instances of common practices shared by the two localities and associated with similar sets of religious concepts. The playing of scrapers, on the other hand, is a typically Cypriote custom that links the island with the east. The eastern connection is also prominent with regard to the iconography of the tambourine, which appears in the LBA in Cyprus and becomes a popular motif in the EIA. In Greece the tambourine is found on imported artefacts ("Cypro-Phoenician" bronze bowls) that may have been manufactured on Cyprus, among other places, and the only locally made representations come from Crete (Cat. 74, 75) and are associated with the Cypriote models.

The influence from neighbouring civilisations in the musical practices of the Aegean is distilled and basically reflects a dynamic cultural and musical environment in the Eastern Mediterranean, that is the result of intense communications and the presence of immigrant craftsmen from the Levant. The eastern influence is particularly strong in connection with the performance of idiophones and membranophones. The popularity of the musical "Cypro-

Phoenician” scenes on the other hand, with an instrumental ensemble approaching a seated divinity, results from the fact that these scenes reflect common ceremonial practices in the Eastern Mediterranean, which have their roots in the Bronze Age.